

=> d his

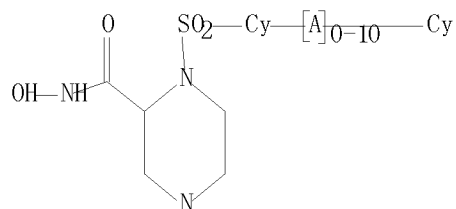
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FILE 'REGISTRY' ENTERED AT 07:58:16 ON 21 DEC 2008

L1 STRUCTURE UPLOADED
 L2 27 S L1
 L3 1 S PIPERAZINE/CN
 L4 1425189 S 46.383/RID
 L5 367 SEARCH L1 SSS SUB=L4 FULL

=> d que l5 stat

L1 STR



Structure attributes must be viewed using STN Express query preparation.

L4 1425189 SEA FILE=REGISTRY ABB=ON PLU=ON 46.383/RID
 L5 367 SEA FILE=REGISTRY SUB=L4 SSS FUL L1

100.0% PROCESSED 743 ITERATIONS 367 ANSWERS
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=> s l5 and ed<6/12/2002

40504727 ED<6/12/2002

(ED<20020612)

L6 238 L5 AND ED<6/12/2002

=> s l6 and caplus/lc

61403079 CAPLUS/LC

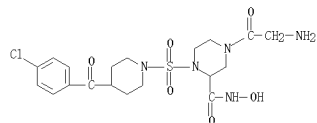
L7 235 L6 AND CAPLUS/LC

=> s l6 not l7

L8 3 L6 NOT L7

=> d 1-3 ide can

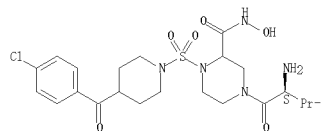
L8 ANSWER 1 OF 3 REGISTRY COPYRIGHT 2008 ACS on STN
 RN 210915-66-5 REGISTRY
 ED Entered STN: 06 Sep 1998
 CN 2-Piperazinecarboxamide, 4-(2-aminoacetyl)-1-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N-hydroxy- (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN 2-Piperazinecarboxamide, 4-(aminoacetyl)-1-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N-hydroxy- (9CI)
 MF C19 H26 Cl N5 O6 S
 CI COM
 SR CA



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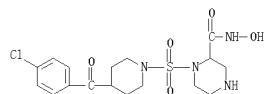
L8 ANSWER 2 OF 3 REGISTRY COPYRIGHT 2008 ACS on STN
 RN 210915-48-3 REGISTRY
 ED Entered STN: 06 Sep 1998
 CN 2-Piperazinecarboxamide, 4-[(2S)-2-amino-3-methyl-1-oxobutyl]-1-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N-hydroxy- (CA INDEX NAME)
 FS STEREOSEARCH
 MF C22 H32 Cl N5 O6 S
 CI COM
 SR CA

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L8 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2008 ACS on STN
 RN 210915-33-6 REGISTRY
 ED Entered STN: 06 Sep 1998
 CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N-hydroxy- (CA INDEX NAME)
 MF C17 H23 Cl N4 O5 S
 CI COM
 SR CA



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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FILE COVERS 1907 - 21 Dec 2008 VOL 149 ISS 26
FILE LAST UPDATED: 19 Dec 2008 (20081219/ED)

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<http://www.cas.org/legal/infopolicy.html>
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L9 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2006:972320 CAPLUS
DN 146:454135

TI Quantitative structure-activity relationship studies on matrix metalloproteinase inhibitors: piperazine, piperidine and diazepine hydroxamic acid analogs

AU Gupta, S. P.; Kumaran, S.
CS Department of Chemistry, Birla Institute of Technology and Science, Pilani, 333031, India

S0 Asian Journal of Biochemistry (2006), 1(3), 211-223

CODEN: AJBSCO; ISSN: 1815-9923

PB Academic Journals

DT Journal

LA English

AB A quant. structure-activity relationship study has been made on four different series of piperazine, piperidine and diazepine hydroxamic acid analogs acting as matrix metalloproteinase (MMP) inhibitors. The results suggest that in most of the cases the hydrophobic property of the mols. plays a major role in the inhibition of the enzymes MMP-1, MMP-9, MMP-13 and TACE. In many cases, MMP-9 and MMP-13 are shown to behave in a similar fashion with the different group of inhibitors.

IT 609816-96-8 609816-97-9 609816-98-0

609816-99-1 609817-00-7 609817-01-8

609817-03-0 609817-04-1 609817-05-2

609817-06-3 609817-07-4 609817-08-5

609817-09-6 609817-10-9 609817-11-0

609817-12-1 609817-13-2 609817-14-3

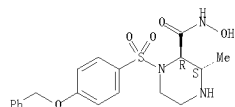
935443-13-3

RE: DMA (Drug mechanism of action); PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (QSAR studies on piperazine, piperidine and diazepine hydroxamic acid analogs acting as matrix metalloproteinase inhibitors)

RN 609816-96-8 CAPLUS

CN 2-Piperazinecarboxamide, N-hydroxy-3-methyl-1-[[4-(phenylmethoxy)phenyl]sulfonyl]-, (2R,3S)- (CA INDEX NAME)

Absolute stereochemistry.



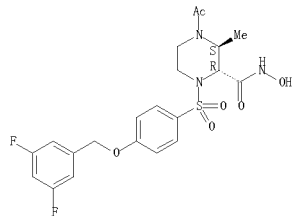
RN 609816-97-9 CAPLUS

CN 2-Piperazinecarboxamide, N-hydroxy-3-methyl-1-[[4-(2-methylphenyl)methoxy]phenyl]sulfonyl]-, (2R,3S)- (CA INDEX NAME)

Absolute stereochemistry.

L9 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
difluorophenyl]methoxy]phenyl]sulfonyl]-N-hydroxy-3-methyl-, (2R,3S)- (CA INDEX NAME)

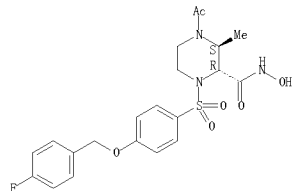
Absolute stereochemistry.



RN 609817-01-8 CAPLUS

CN 2-Piperazinecarboxamide, 4-acetyl-1-[[4-(4-fluorophenyl)methoxy]phenyl]sulfonyl]-N-hydroxy-3-methyl-, (2R,3S)- (CA INDEX NAME)

Absolute stereochemistry.

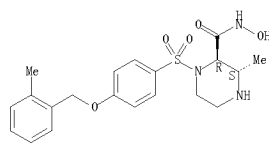


RN 609817-03-0 CAPLUS

CN 2-Piperazinecarboxamide, 4-acetyl-N-hydroxy-3-methyl-1-[[4-[(trifluoromethyl)phenyl]methoxy]phenyl]sulfonyl]-, (2R,3S)- (CA INDEX NAME)

Absolute stereochemistry.

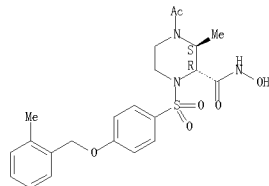
L9 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 609816-98-0 CAPLUS

CN 2-Piperazinecarboxamide, 4-acetyl-N-hydroxy-3-methyl-1-[[4-[(2-methylphenyl)methoxy]phenyl]sulfonyl]-, (2R,3S)- (CA INDEX NAME)

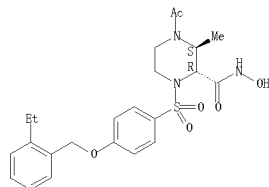
Absolute stereochemistry.



RN 609816-99-1 CAPLUS

CN 2-Piperazinecarboxamide, 4-acetyl-1-[[4-[(2-ethylphenyl)methoxy]phenyl]sulfonyl]-N-hydroxy-3-methyl-, (2R,3S)- (CA INDEX NAME)

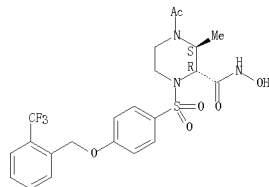
Absolute stereochemistry.



RN 609817-00-7 CAPLUS

CN 2-Piperazinecarboxamide, 4-acetyl-1-[[4-[(3,5-

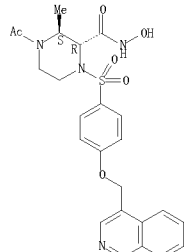
L9 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 609817-04-1 CAPLUS

CN 2-Piperazinecarboxamide, 4-acetyl-N-hydroxy-1-[[4-(4-isquinolinyl)methoxy]phenyl]sulfonyl]-N-hydroxy-3-methyl-, (2R,3S)- (CA INDEX NAME)

Absolute stereochemistry.

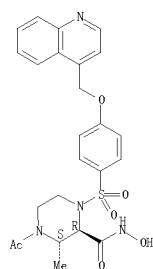


RN 609817-05-2 CAPLUS

CN 2-Piperazinecarboxamide, 4-acetyl-N-hydroxy-3-methyl-1-[[4-(4-quinolinyl)methoxy]phenyl]sulfonyl]-, (2R,3S)- (CA INDEX NAME)

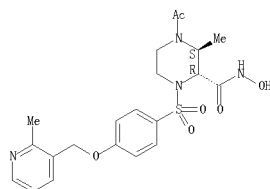
Absolute stereochemistry.

L9 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 609817-06-3 CAPLUS
 CN 2-Piperazinecarboxamide, 4-acetyl-N-hydroxy-3-methyl-1-[[4-[(2-methyl-3-pyridinyl)methoxy]phenyl]sulfonyl]-, (2R,3S)- (CA INDEX NAME)

Absolute stereochemistry.



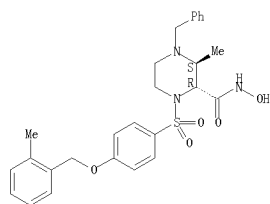
RN 609817-07-4 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-3-methyl-1-[[4-[(2-methylphenyl)methoxy]phenyl]sulfonyl]-4-(methylsulfonyl)-, (2R,3S)- (CA INDEX NAME)

Absolute stereochemistry.

L9 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

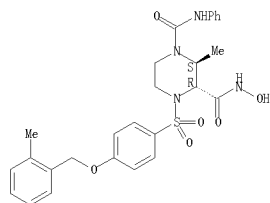
RN 609817-10-9 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-3-methyl-1-[[4-[(2-methylphenyl)methoxy]phenyl]sulfonyl]-4-(phenylmethyl)-, (2R,3S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 609817-11-0 CAPLUS
 CN 1,3-Piperazinedicarboxamide, N-hydroxy-2-methyl-4-[[4-[(2-methylphenyl)methoxy]phenyl]sulfonyl]-N1-phenyl-, (2S,3R)- (CA INDEX NAME)

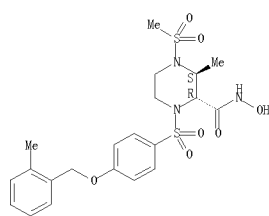
Absolute stereochemistry.



RN 609817-12-1 CAPLUS
 CN 1-Piperazinecarboxylic acid, 3-[(hydroxyamino)carbonyl]-2-methyl-4-[[4-[(2-methylphenyl)methoxy]phenyl]sulfonyl]-, methyl ester, (2S,3R)- (CA INDEX NAME)

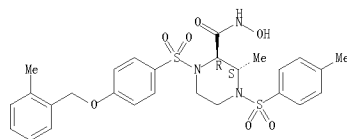
Absolute stereochemistry.

L9 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



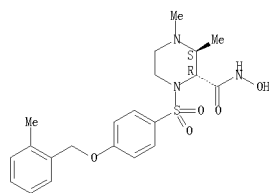
RN 609817-08-5 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-3-methyl-1-[[4-[(2-methylphenyl)methoxy]phenyl]sulfonyl]-4-[(4-methylphenyl)sulfonyl]-, (2R,3S)- (CA INDEX NAME)

Absolute stereochemistry.

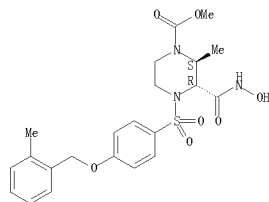


RN 609817-09-6 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-3,4-dimethyl-1-[[4-[(2-methylphenyl)methoxy]phenyl]sulfonyl]-, (2R,3S)- (CA INDEX NAME)

Absolute stereochemistry.

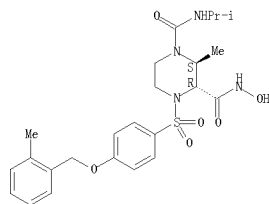


L9 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



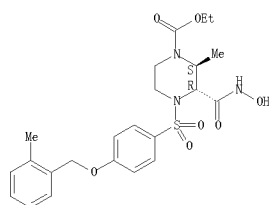
RN 609817-13-2 CAPLUS
 CN 1,3-Piperazinedicarboxamide, N-hydroxy-2-methyl-N1-(1-methylethyl)-4-[[4-[(2-methylphenyl)methoxy]phenyl]sulfonyl]-, (2S,3R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 609817-14-3 CAPLUS
 CN 1-Piperazinecarboxylic acid, 3-[(hydroxyamino)carbonyl]-2-methyl-4-[[4-[(2-methylphenyl)methoxy]phenyl]sulfonyl]-, ethyl ester, (2S,3R)- (CA INDEX NAME)

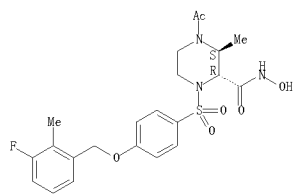
Absolute stereochemistry.



L9 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

RN 935443-13-3 CAPLUS
CN 2-Piperazinecarboxamide, 4-acetyl-1-[[4-[(3-fluoro-2-methylphenyl)methoxy]phenyl]sulfonyl]-N-hydroxy-3-methyl-, (2R,3S)- (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 2 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2006:207968 CAPLUS

DN 145:391285

TI Stabilization of the autoprolysis of TNF- α converting enzyme (TACE) results in a novel crystal form suitable for structure-based drug design studies

AU Ingram, Richard N.; Orth, Peter; Strickland, Corey L.; Le, Hung V.;

Madison, Vincent; Beyer, Brian M.

CS Department of Structural Chemistry, Schering-Plough Research Institute,

Kenilworth, NJ, 07033, USA

SO Protein Engineering, Design & Selection (2006), 19(4), 155-161

CODEN: PEDEBR; ISSN: 1741-0136

PB Oxford University Press

DT Journal

LA English

AB The crystallization of TNF- α converting enzyme (TACE) has been useful in understanding the structure-activity relationships of new chemical entities. However, the propensity of TACE to undergo autoprolysis has made enzyme handling difficult and impeded the identification of inhibitor soakable crystal forms. The autoprolysis of TACE was found to be specific (Y352-V353) and occurred within a flexible loop that is in close proximity to the P-side of the active site. The rate of autoprolysis was found to be proportional to the concentration of TACE, suggesting a bimol. reaction mechanism. A limited specificity study of the S1' subsite was conducted using surrogate peptides and suggested substitutions that would stabilize the proteolysis of the loop at positions Y352-V353. Two mutant proteases (V353G and V353S) were generated and proved to be highly resistant to autoprolysis. The kinetics of the more resistant mutant (V353G) and wild-type TACE were compared and demonstrated virtually identical [K₅₀ values for a panel of competitive inhibitors. However, the k_{cat}/K_m of the mutant for a larger substrate (P6 - P6') was .apprx.5-fold lower than that for the wild-type enzyme. Comparison of the complexed wild-type and mutant structures indicated a subtle shift in a peripheral P-side loop (comprising the mutation site) that may be involved in substrate binding/turnover and might explain the mild kinetic difference. The characterization of this stabilized form of TACE has yielded an enzyme with similar native kinetic properties and identified a novel crystal form that is suitable for inhibitor soaking and structure determination

IT 911294-68-3

RL: BCU (Biological study, unclassified); BIOL (Biological study)

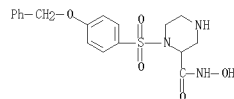
(Inhibition; mutation of the autoprolysis of the autoprolysis of

TNF- α converting enzyme (TACE) results in a novel crystal form)

RN 911294-68-3 CAPLUS

CN 2-Piperazinecarboxamide, N-hydroxy-1-[[4-(phenylmethoxy)phenyl]sulfonyl]-

(CA INDEX NAME)



RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2005:465245 CAPLUS

DN 143:399666

TI Prevention of progressive joint destruction in adjuvant induced arthritis in rats by a novel matrix metalloproteinase inhibitor, FR217840. [Erratum to document cited in CA142:329759]

AU Ishikawa, Takeshi; Nishigaki, Fusako; Miyata, Susumu; Hirayama, Yoshitaka;

Minoura, Kyoko; Imanishi, Junko; Neya, Masahiro; Mizutani, Tsuyoshi;

Inamura, Yoshimasa; Ohkubo, Yoshitaka; Mutoh, Seitaro

CS Medicinal Biology Research Laboratories, Fujisawa Pharmaceutical Co.,

Ltd., Yodogawa-ku, Osaka, 532-8514, Japan

SO European Journal of Pharmacology (2005), 515(1-3), 188

CODEN: EJPHAZ; ISSN: 0014-2999

PB Elsevier B.V.

DT Journal

LA English

AB The Acknowledgment was omitted from the printed version; it should read:

"The authors thank Dr. Nobuchika Yamamoto for advice and contribution to the enzyme inhibition assays".

IT 848444-16-6, FR 217840

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

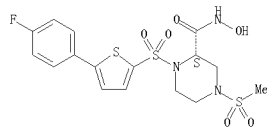
(MMP inhibitor prevents joint destruction in arthritic rats [Erratum])

RN 848444-16-6 CAPLUS

CN 2-Piperazinecarboxamide, 1-[[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N-

hydroxy-4-(methylsulfonyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2005:69887 CAPLUS

DN 142:329759

TI Prevention of progressive joint destruction in adjuvant induced arthritis in rats by a novel matrix metalloproteinase inhibitor, FR217840

AU Ishikawa, Takeshi; Nishigaki, Fusako; Miyata, Susumu; Hirayama, Yoshitaka;

Minoura, Kyoko; Imanishi, Junko; Neya, Masahiro; Mizutani, Tsuyoshi;

Inamura, Yoshimasa; Ohkubo, Yoshitaka; Mutoh, Seitaro

CS Medicinal Biology Research Laboratories, Fujisawa Pharmaceutical Co.,

Ltd., Osaka, 532-8514, Japan

SO European Journal of Pharmacology (2005), 508(1-3), 239-247

CODEN: EJPHAZ; ISSN: 0014-2999

PB Elsevier B.V.

DT Journal

LA English

AB Matrix metalloproteinase (MMP) has been implicated in joint destruction of

chronic arthritis diseases, such as rheumatoid arthritis. FR217840

(2R)-1-[[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-

(methylsulfonyl)-2-piperazinecarboxamide is a potent, orally active

synthetic MMP inhibitor that inhibits human collagenases (MMP-1, MMP-8 and

MMP-13), gelatinases (MMP-2 and MMP-9) and membrane type MMP (MT-MMP)

(MT1-MMP/MMP-14). FR217840 also inhibits rat collagenase and gelatinase.

We studied the effect of FR217840 on a rat adjuvant induced arthritis

model. Although oral administration (days 1-21) of FR217840 (3.2, 10, 32

mg/kg) to adjuvant injected Lewis rats did not affect inflammation, as

indicated by both hind paw swelling and histol. inflammatory infiltration,

FR217840 suppressed both bone destruction and serum pyridinoline content

in a dose-dependent manner. Also, FR217840 (32 mg/kg) reduced

tartrate-resistant acid phosphatase (TRAP) cell number in the ankle joints of

rats with arthritis. These results indicate that FR217840 successfully

suppressed joint destruction and suggest that FR217840 may have potential

as a novel anti-rheumatic drug.

IT 848444-16-6, FR 217840

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

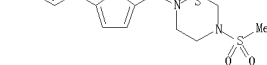
(MMP inhibitor prevents joint destruction in arthritic rats)

RN 848444-16-6 CAPLUS

CN 2-Piperazinecarboxamide, 1-[[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N-

hydroxy-4-(methylsulfonyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



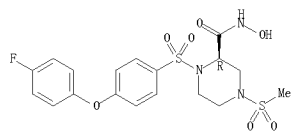
RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2004:718284 CAPLUS
 DN 141:236618
 TI Inhibitors of hepatitis C virus, compositions and treatments using the same
 IN Durgal, Rohit; Patick, Amy Karen; Zhao, Weidong; Herlihy, Kileen Jill;
 Sha, Biann; Liu, Wei
 PA Pfizer Inc., USA
 SO PCT Int. Appl., 48 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN CNT 1

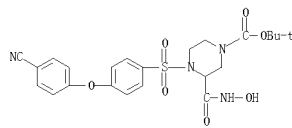
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004073599	A2	20040902	WO 2004-1B403	20040206
WO 2004073599	A3	20041223		
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CA 2516328	A1	20040902	CA 2004-2516328	20040206
EP 1596846	A2	20051123	EP 2004-708837	20040206
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IS, SI, LT, LV, FI, RO, MK, CH, AL, TR, BG, CZ, EE, HU, SK				
BR 2004007587	A	20060214	BR 2004-7587	20040206
JP 2006517960	T	20060803	JP 2006-502443	20040206
US 20040229817	A1	20041118	US 2004-782679	20040218
MX 2005PA08106	A	20050921	MX 2005-PA8106	20050728
PRAI WO 2004-1B403	P	20050218		
W		20040206		
OS MARPAT 141:236618				
AB The invention relates to methods of inhibiting HCV viral replication activity comprising contacting an HCV polymerase with a therapeutically effective amount of a hydroxamate MMP inhibitor, and composition comprising the same.				
IT 192329-44-5 192329-47-8 192329-52-5 192329-60-5 192329-79-6 192330-15-7 192330-23-7 207795-08-2 207795-09-3 207795-11-7 256645-85-9 256646-32-9 256646-35-2 256646-47-6 256646-53-4 256647-04-8 752223-28-2 752223-75-9				
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (Inhibitors of hepatitis C virus)				
RN 192329-44-5 CAPLUS				
CN 1-Piperazinecarboxylic acid, 4-[[4-(4-bromophenoxy)phenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)				

L9 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 CN 2-Piperazinecarboxamide, 1-[[4-(4-fluorophenoxy)phenyl]sulfonyl]-N-hydroxy-4-(methylsulfonyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.

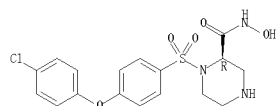


RN 192330-15-7 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[[4-(4-cyanophenoxy)phenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

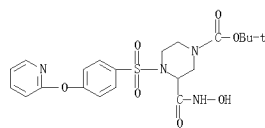


RN 192330-23-7 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorophenoxy)phenyl]sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

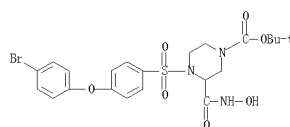
Absolute stereochemistry.



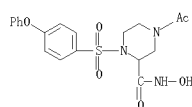
RN 207795-08-2 CAPLUS
 CN 1-Piperazinecarboxylic acid, 3-[(hydroxyamino)carbonyl]-4-[[4-(2-pyridinyloxy)phenyl]sulfonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



L9 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

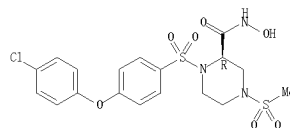


RN 192329-47-8 CAPLUS
 CN 2-Piperazinecarboxamide, 4-acetyl-N-hydroxy-1-[(4-phenoxyphenyl)sulfonyl]- (CA INDEX NAME)

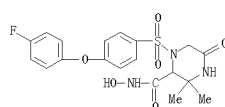


RN 192329-52-5 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorophenoxy)phenyl]sulfonyl]-N-hydroxy-4-(methylsulfonyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



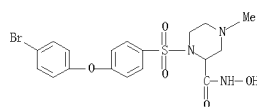
RN 192329-60-5 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-fluorophenoxy)phenyl]sulfonyl]-N-hydroxy-3,3-dimethyl-5-oxo- (CA INDEX NAME)



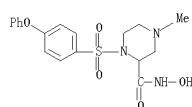
RN 192329-79-6 CAPLUS

L9 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

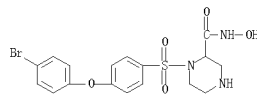
RN 207795-09-3 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-bromophenoxy)phenyl]sulfonyl]-N-hydroxy-4-methyl- (CA INDEX NAME)



RN 207795-11-7 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-4-methyl-1-[(4-phenoxyphenyl)sulfonyl]- (CA INDEX NAME)

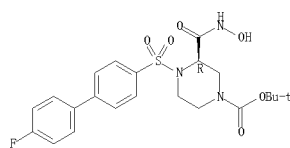


RN 256645-85-9 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-bromophenoxy)phenyl]sulfonyl]-N-hydroxy- (CA INDEX NAME)



RN 256646-32-9 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[[4'-fluoro[1,1'-biphenyl]-4-yl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, 1,1-dimethylethyl ester, (3R)- (CA INDEX NAME)

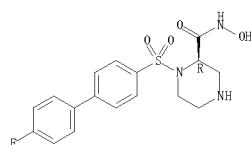
Absolute stereochemistry.



RN 256646-35-2 CAPLUS

L9 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 CN 2-Piperazinecarboxamide, 1-[(4'-fluoro[1,1'-biphenyl]-4-yl)sulfonyl]-N-hydroxy-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

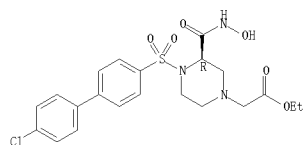
Absolute stereochemistry.



● HCl

RN 256646-47-6 CAPLUS
 CN 1-Piperazineacetic acid, 4-[(4'-chloro[1,1'-biphenyl]-4-yl)sulfonyl]-3-[(hydroxyamino)carbonyl]-, ethyl ester, hydrochloride (1:1), (3R)- (CA INDEX NAME)

Absolute stereochemistry.

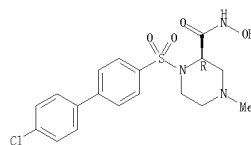


● HCl

RN 256646-53-4 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[(4'-fluoro[1,1'-biphenyl]-4-yl)sulfonyl]-N-hydroxy-4-methyl-, (2R)- (CA INDEX NAME)

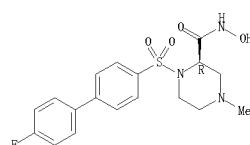
Absolute stereochemistry.

L9 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

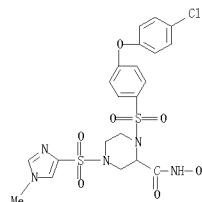


● HCl

L9 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

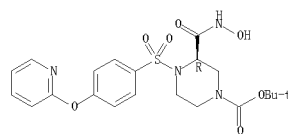


RN 256647-04-8 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorophenoxy)phenyl)sulfonyl]-N-hydroxy-4-[(1-methyl-1H-imidazol-4-yl)sulfonyl]- (CA INDEX NAME)



RN 752223-28-2 CAPLUS
 CN 1-Piperazinecarboxylic acid, 3-[(hydroxyamino)carbonyl]-4-[[4-(2-pyridinyloxy)phenyl)sulfonyl]-, 1,1-dimethylethyl ester, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



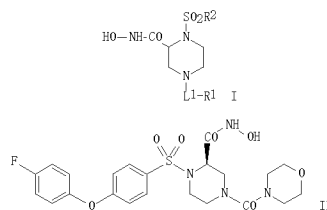
RN 752223-75-9 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[(4'-chloro[1,1'-biphenyl]-4-yl)sulfonyl]-N-hydroxy-4-methyl-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

Absolute stereochemistry.

L9 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2003:1006921 CAPLUS
 DN 140:42210
 TI Preparation of 1-sulfonyl-2-piperazinehydroxamic acids as selective inhibitors of human ADAM-10 for treating cancer, arthritis and diseases related to angiogenesis
 IN Bannen, Lynne Canne; Co, Erick W.; Jammalamadaka, Vasu; Nuss, John M.; Kim, Moon Hwan; Le Tra, Donna; Lew, Amy; Mac, Morrison B.; Mamo, Shumeyi; Wen, Zhaoyang; Xu, Wei
 PA Exelixis, Inc., USA
 SO PCT Int. Appl., 94 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN, CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003106381	A2	20031224	WO 2003-US18262	20030611
WO 2003106381	A3	20040415		
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2485346	A1	20031224	CA 2003-2485346	20030611
AU 2003237532	A1	20031231	AU 2003-237532	20030611
EP 1511488	A2	20050509	EP 2003-736979	20030611
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 200553789	T	20051110	JP 2004-513217	20030611
US 20060199820	A1	20060907	US 2005-518110	20051026
PRAI US 2002-38826P	P	20020612		
WO 2003-US18262	W	20030611		
OS MARPAT 140:42210				
GI				

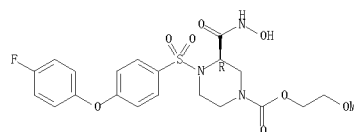


AB The present invention provides 1-sulfonyl-2-piperazinehydroxamic acids (shown as I; variables defined below; e.g. II) useful for inhibiting the ADAM-10 protein, with selectivity vs. MMP-1. Inhibition activities of 66 examples of I towards s8 metalloproteinases are tabulated. Such compds. are useful in the in vitro study of the role of ADAM-10 (and its

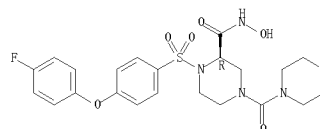
L9 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
inhibition) in biol. processes. The present invention also comprises pharmaceutical compns. comprising ≥ 1 ADAM-10 inhibitors according to the invention in combination with a pharmaceutically acceptable carrier. Such compns. are useful for the treatment of cancer, arthritis, and diseases related to angiogenesis. Correspondingly, the invention also comprises methods of treating forms of cancer, arthritis, and diseases related to angiogenesis in which ADAM-10 plays a crit. role. A method of prepn. of sulfonyl halide intermediates is claimed. For example, [4-(4-fluorophenoxy)-3,5-difluorophenyl]sulfonyl chloride was prepd. in 3 steps (105, 96 and 83 % yields) starting from 3,4,5-trifluoronitrobenzene, 4-fluorophenol, and Cs₂CO₃ in DMF and involving intermediates 4-(4-fluorophenoxy)-3,5-difluoronitrobenzene and 4-(4-fluorophenoxy)-3,5-difluoroaniline. The prepd. [4-(4-fluorophenoxy)-3,5-difluorophenyl]sulfonyl chloride was used in a 5-step procedure (65, 78, -, 69 and 62 % yields) to give 11 involving intermediates (R)-1-[[4-(4-fluorophenoxy)-3,5-difluorophenyl]sulfonyl]-4-boc-piperazine-2-carboxylic acid, Me (R)-1-[[4-(4-fluorophenoxy)-3,5-difluorophenyl]sulfonyl]piperazine-2-carboxylate, Me (R)-1-[[4-(4-fluorophenoxy)-3,5-difluorophenyl]sulfonyl]piperazine-2-carboxylate trifluoroacetate and Me (R)-1-[[4-(4-fluorophenoxy)-3,5-difluorophenyl]sulfonyl]-4-(ethoxycarbonyl)piperazine-2-carboxylate. Although the methods of prepn. of I are not claimed, several example preps. and characterization data for 66 examples of I are included. For I: L1 is -C(O)-, -S(O)2-, or -(CH2)n-; R1 is -H, -OR11, -(CH2)nR11, -C(O)R11, or -NR12R13; R2 is -R21-L2-R22 (R21 is satd. or mono- or poly- unsatd. C5-C14-mono- or fused poly- cyclic hydrocarbyl, optionally contg. one or two annular heteroatoms per ring and (un)substituted with 1-3 R50 substituents; L2 is -O-, -C(O)-, -CH2-, -NH-, -SO2- or a direct bond; R22 is satd. or mono- or poly- unsatd. C5-C14-mono- or fused polycyclic hydrocarbyl, optionally contg. one or two annular heteroatoms per ring and (un)substituted with 1-3 R50 substituents); n = 0-3; provided that an O or S is not singly bonded to another O or S in a chain of atoms; addnl. details are given in the claims.

IT 637026-58-5P 637026-59-6P 637026-60-9P
637026-61-0P 637026-62-1P 637026-63-2P
637026-64-3P 637026-65-4P 637026-66-5P
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637027-21-5P 637027-22-6P 637027-23-7P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of 1-sulfonyl-2-piperazinehydroxamic acids as

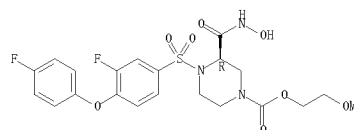
L9 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
selective inhibitors of human ADAM-10 for treating cancer, arthritis and diseases related to angiogenesis)
RN 637026-58-5 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[4-(4-fluorophenoxy)phenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, 2-methoxyethyl ester, (3R)- (CA INDEX NAME)
Absolute stereochemistry.



RN 637026-59-6 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-fluorophenoxy)phenyl]sulfonyl]-N-hydroxy-4-(4-morpholinylcarbonyl)-, (2R)- (CA INDEX NAME)
Absolute stereochemistry.



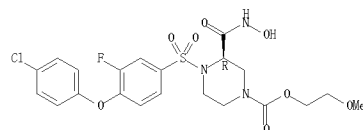
RN 637026-60-9 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[3-fluoro-4-(4-fluorophenoxy)phenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, 2-methoxyethyl ester, (3R)- (CA INDEX NAME)
Absolute stereochemistry.



RN 637026-61-0 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[4-(4-chlorophenoxy)-3-fluorophenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, 2-methoxyethyl ester, (3R)- (CA INDEX NAME)
Absolute stereochemistry.

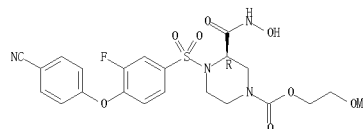
L9 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
(3R)- (CA INDEX NAME)

Absolute stereochemistry.



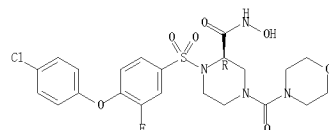
RN 637026-62-1 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[4-(4-cyanophenoxy)-3-fluorophenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, 2-methoxyethyl ester, (3R)- (CA INDEX NAME)
Absolute stereochemistry.

Absolute stereochemistry.



RN 637026-63-2 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorophenoxy)-3-fluorophenyl]sulfonyl]-N-hydroxy-4-(4-morpholinylcarbonyl)-, (2R)- (CA INDEX NAME)
Absolute stereochemistry.

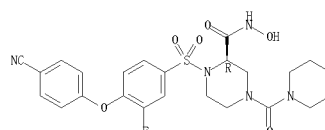
Absolute stereochemistry.



RN 637026-64-3 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-cyanophenoxy)-3-fluorophenyl]sulfonyl]-N-hydroxy-4-(4-morpholinylcarbonyl)-, (2R)- (CA INDEX NAME)
Absolute stereochemistry.

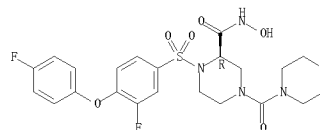
Absolute stereochemistry.

L9 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



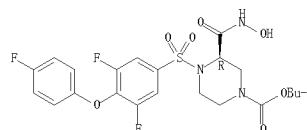
RN 637026-65-4 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[[3-fluoro-4-(4-fluorophenoxy)phenyl]sulfonyl]-N-hydroxy-4-(4-morpholinylcarbonyl)-, (2R)- (CA INDEX NAME)
Absolute stereochemistry.

Absolute stereochemistry.



RN 637026-66-5 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[3,5-difluoro-4-(4-fluorophenoxy)phenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, 1,1-dimethylethyl ester, (3R)- (CA INDEX NAME)
Absolute stereochemistry.

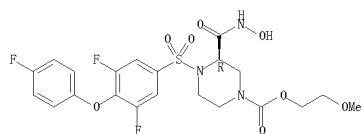
Absolute stereochemistry.



RN 637026-67-6 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[3,5-difluoro-4-(4-fluorophenoxy)phenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, 2-methoxyethyl ester, (3R)- (CA INDEX NAME)
Absolute stereochemistry.

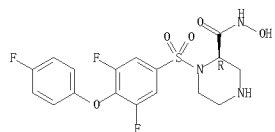
Absolute stereochemistry.

L9 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



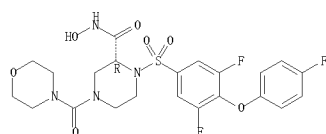
RN 637026-68-7 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[[3,5-difluoro-4-(4-fluorophenoxy)phenyl]sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 637026-69-8 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[[3,5-difluoro-4-(4-fluorophenoxy)phenyl]sulfonyl]-N-hydroxy-4-(4-morpholinylcarbonyl)-, (2R)- (CA INDEX NAME)

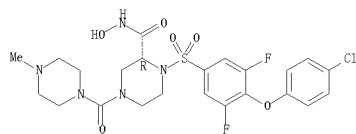
Absolute stereochemistry.



RN 637026-70-1 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-3-[(hydroxamino)carbonyl]-, ethyl ester, (3R)- (CA INDEX NAME)

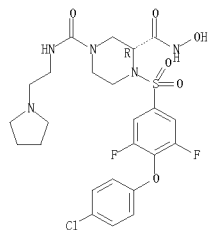
Absolute stereochemistry.

L9 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



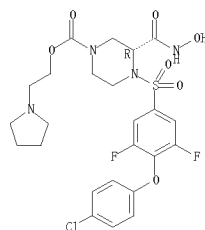
RN 637026-74-5 CAPLUS
CN 1,3-Piperazinecarboxamide, 4-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-3-[(hydroxamino)carbonyl]-N-methyl-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.

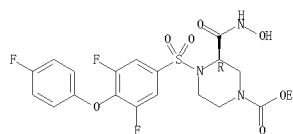


RN 637026-75-6 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-3-[(hydroxamino)carbonyl]-, 2-(1-pyrrolidinyl)ethyl ester, (3R)- (CA INDEX NAME)

Absolute stereochemistry.

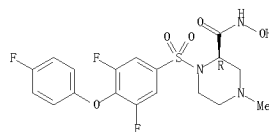


L9 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



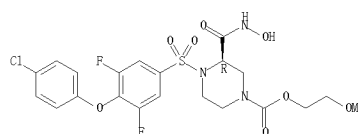
RN 637026-71-2 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[[3,5-difluoro-4-(4-fluorophenoxy)phenyl]sulfonyl]-N-hydroxy-4-methyl-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 637026-72-3 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-3-[(hydroxamino)carbonyl]-, 2-methoxyethyl ester, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



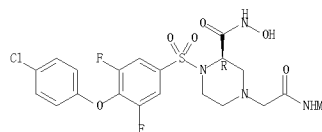
RN 637026-73-4 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy-4-[(4-methyl-1-piperazinyl)carbonyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.

L9 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

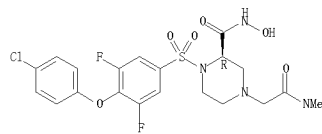
RN 637026-76-7 CAPLUS
CN 1-Piperazineacetamide, 4-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-3-[(hydroxamino)carbonyl]-N-methyl-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



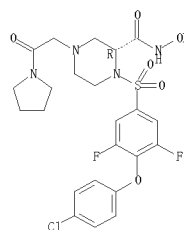
RN 637026-77-8 CAPLUS
CN 1-Piperazineacetamide, 4-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-3-[(hydroxamino)carbonyl]-N,N-dimethyl-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 637026-78-9 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy-4-[2-oxo-2-(1-pyrrolidinyl)ethyl]-, (2R)- (CA INDEX NAME)

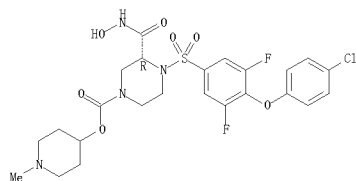
Absolute stereochemistry.



L9 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

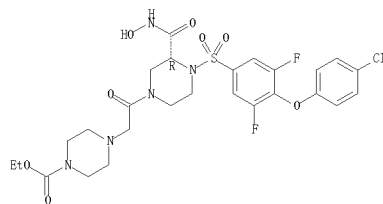
RN 637026-79-0 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, 1-methyl-4-piperidinyl ester, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 637026-80-3 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[2-[(3R)-4-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-1-piperazinyl]-2-oxoethyl]-, ethyl ester (CA INDEX NAME)

Absolute stereochemistry.



RN 637026-81-4 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy-4-[2-(4-methyl-1-piperazinyl)acetyl]-, (2R)- (CA INDEX NAME)

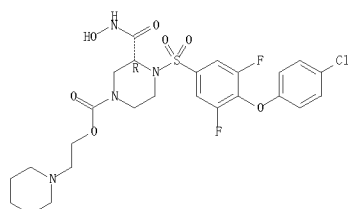
Absolute stereochemistry.



L9 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

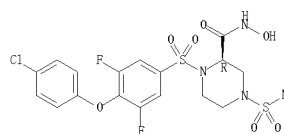
RN 637026-84-7 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, 2-(1-piperidinyl)ethyl ester, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



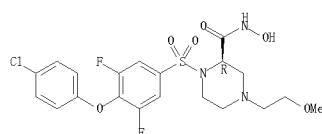
RN 637026-85-8 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy-4-(methylsulfonyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



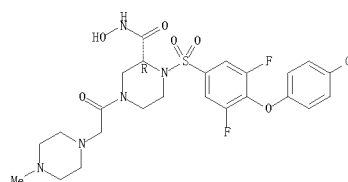
RN 637026-86-9 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy-4-(2-methoxyethyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



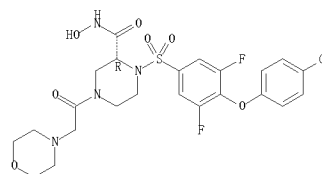
RN 637026-87-0 CAPLUS

L9 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



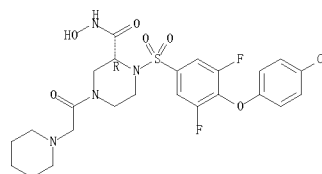
RN 637026-82-5 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy-4-[2-(4-morpholinyl)acetyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 637026-83-6 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy-4-[2-(1-piperidinyl)acetyl]-, (2R)- (CA INDEX NAME)

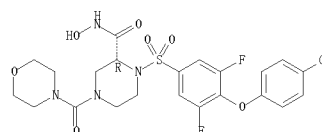
Absolute stereochemistry.



L9 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

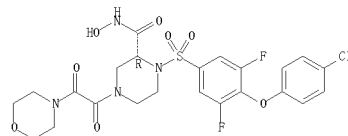
RN 637026-88-1 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy-4-[2-(4-morpholinyl)acetyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



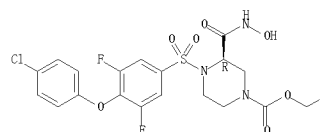
RN 637026-88-1 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy-4-[2-(4-morpholinyl)acetyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 637026-89-2 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, phenylmethyl ester, (3R)- (CA INDEX NAME)

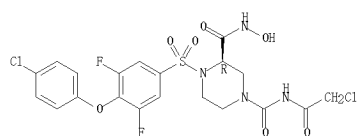
Absolute stereochemistry.



RN 637026-90-5 CAPLUS
 CN 1,3-Piperazinedicarboxamide, N1-(2-chloroacetyl)-4-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N3-hydroxy-, (3R)- (CA INDEX NAME)

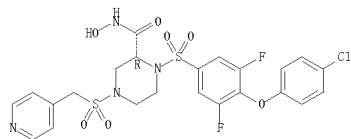
Absolute stereochemistry.

L9 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



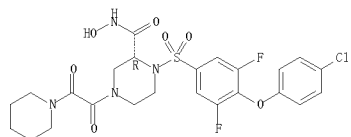
RN 637026-91-6 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy-4-[(4-pyridinylmethyl)sulfonyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 637026-92-7 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy-4-[2-oxo-2-(1-piperidinyl)acetyl]-, (2R)- (CA INDEX NAME)

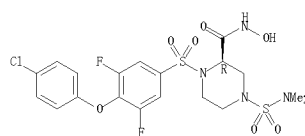
Absolute stereochemistry.



RN 637026-93-8 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy-4-[(dimethylamino)sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

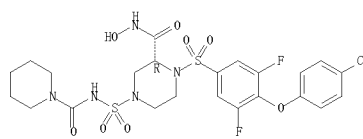
Absolute stereochemistry.

L9 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



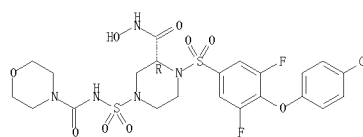
RN 637026-94-9 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy-4-[(1-piperidinylcarbonyl)amino]sulfonyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 637026-95-0 CAPLUS
 CN 4-Morpholinecarboxamide, N-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-1-piperazinyl]sulfonyl]- (CA INDEX NAME)

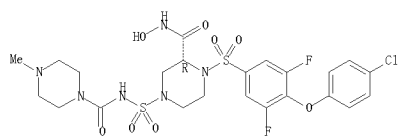
Absolute stereochemistry.



RN 637026-96-1 CAPLUS
 CN 1-Piperazinecarboxamide, 2-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy-5-[[[(4-methyl-1-piperazinyl)carbonyl]amino]sulfonyl]-, (1R)- (CA INDEX NAME)

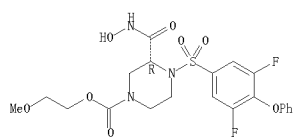
Absolute stereochemistry.

L9 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



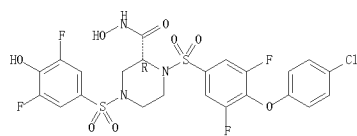
RN 637026-97-2 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[[[3,5-difluoro-4-phenoxyphenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, 2-methoxyethyl ester, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 637026-98-3 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-4-[[3,5-difluoro-4-hydroxyphenyl]sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

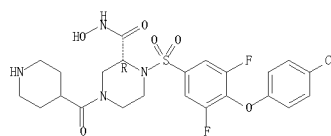
Absolute stereochemistry.



RN 637026-99-4 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy-4-(4-piperidinylcarbonyl)-, (2R)- (CA INDEX NAME)

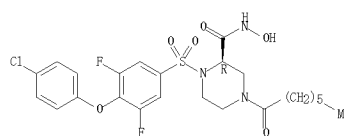
Absolute stereochemistry.

L9 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



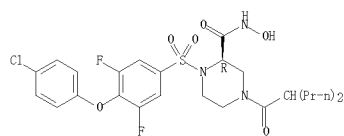
RN 637027-00-0 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy-4-(1-oxoheptyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 637027-01-1 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy-4-(1-oxo-2-propylpentyl)-, (2R)- (CA INDEX NAME)

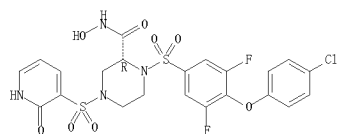
Absolute stereochemistry.



RN 637027-02-2 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy-4-[(1,2-dihydro-2-oxo-3-pyridinyl)sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

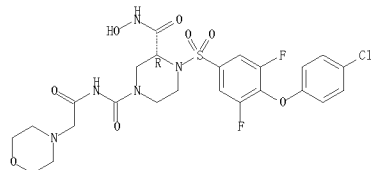
Absolute stereochemistry.

L9 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



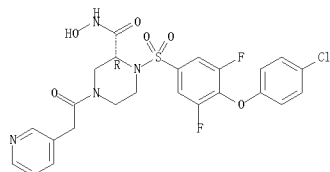
RN 637027-03-3 CAPLUS
CN 1,3-Piperazinedicarboxamide, 4-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy-N-[2-(4-morpholinyl)acetyl]-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



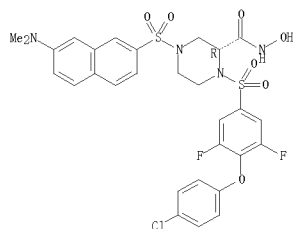
RN 637027-04-4 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy-4-[2-(3-pyridinyl)acetyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



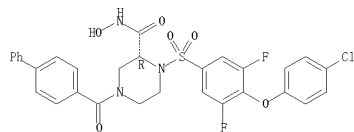
RN 637027-05-5 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy-4-(5-isoquinoliny)sulfonyl]-, (2R)- (CA INDEX NAME)

L9 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



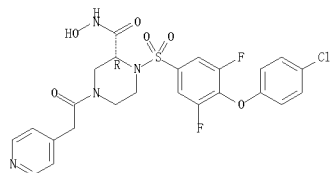
RN 637027-08-8 CAPLUS
CN 2-Piperazinecarboxamide, 4-[[[1,1'-biphenyl]-4-ylcarbonyl]-1-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 637027-09-9 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy-4-[2-(4-pyridinyl)acetyl]-, (2R)- (CA INDEX NAME)

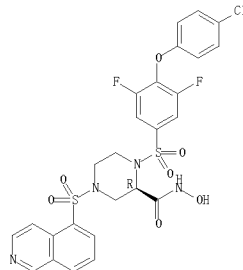
Absolute stereochemistry.



RN 637027-10-2 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy-4-[[2-(1-piperidinyl)ethyl]sulfonyl]-, (2R)- (CA INDEX NAME)

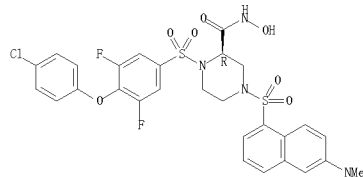
L9 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
(CA INDEX NAME)

Absolute stereochemistry.



RN 637027-06-6 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy-4-[[6-(dimethylamino)-1-naphthalenyl]sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.

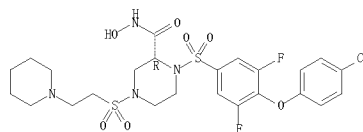


RN 637027-07-7 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy-4-[[7-(dimethylamino)-2-naphthalenyl]sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.

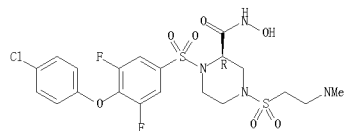
L9 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
(2R)- (CA INDEX NAME)

Absolute stereochemistry.



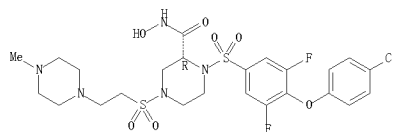
RN 637027-11-3 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy-4-[[2-(dimethylamino)ethyl]sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 637027-12-4 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy-4-[[2-(4-methyl-1-piperazinyl)ethyl]sulfonyl]-, (2R)- (CA INDEX NAME)

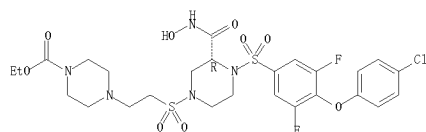
Absolute stereochemistry.



RN 637027-13-5 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[2-[[[(3R)-4-[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-1-piperazinyl]sulfonyl]ethyl]-, ethyl ester (CA INDEX NAME)

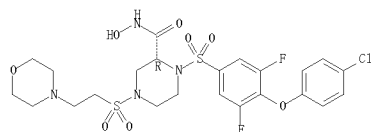
Absolute stereochemistry.

L9 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



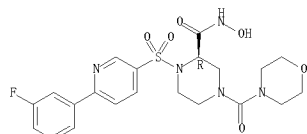
RN 637027-14-6 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy-4-[[2-(4-morpholinyl)ethyl]sulfonyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 637027-15-7 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[6-(3-fluorophenyl)-3-pyridinyl]sulfonyl]-N-hydroxy-4-(4-morpholinylcarbonyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.

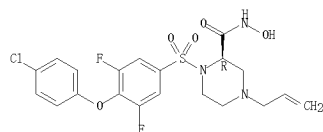


RN 637027-16-8 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-N-hydroxy-4-(3-pyridinylcarbonyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.

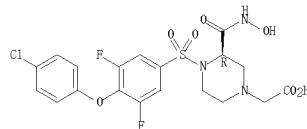
L9 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
NAME)

Absolute stereochemistry.



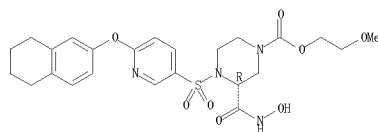
RN 637027-20-4 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 637027-21-5 CAPLUS
CN 1-Piperazinecarboxylic acid, 3-[(hydroxyamino)carbonyl]-4-[[6-[[5,6,7,8-tetrahydro-2-naphthalenyl]oxy]-3-pyridinyl]sulfonyl]-, 2-methoxyethyl ester, (3R)- (CA INDEX NAME)

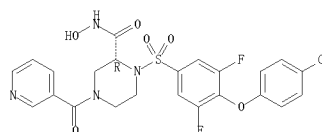
Absolute stereochemistry.



RN 637027-22-6 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[6-(4-fluorophenoxy)-3-pyridinyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, 2-methoxyethyl ester, (3R)- (CA INDEX NAME)

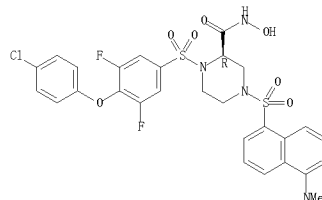
Absolute stereochemistry.

L9 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



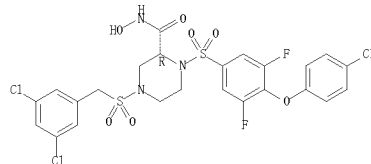
RN 637027-17-9 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-4-[[6-(dimethylamino)-1-naphthalenyl]sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



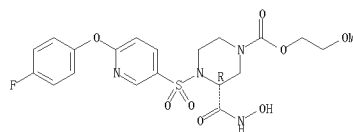
RN 637027-18-0 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorophenoxy)-3,5-difluorophenyl]sulfonyl]-4-[[6-(dimethylamino)-1-naphthalenyl]sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



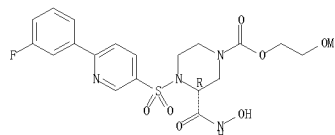
RN 637027-19-1 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorophenoxy)-3,5-

L9 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



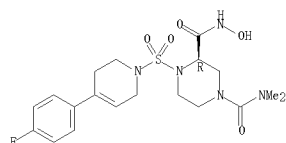
RN 637027-23-7 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[6-(3-fluorophenyl)-3-pyridinyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, 2-methoxyethyl ester, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2003:841815 CAPLUS
 DN 140:87055
 TI Design and synthesis of orally active inhibitors of TNF synthesis as anti-rheumatoid arthritis drugs
 AU Chen, Jian Jeffrey; Dewdney, Nolan; Lin, Xiaohong; Martin, Robert L.; Walker, Keith A. M.; Huang, Jane; Chu, Frances; Bugui, Elsie; Mirkovich, Anna; Kim, Yong; Sarma, Keshab; Arzeno, Humberto; Van Wart, Harold E.
 CS Roche Bioscience, Palo Alto, CA, 94304, USA
 SO Bioorganic & Medicinal Chemistry Letters (2003), 13(22), 3951-3954
 CODEN: BMCLBS; ISSN: 0960-894X
 PB Elsevier Science B.V.
 DT Journal
 LA English
 OS CASREACT 140:87055
 AB A novel series of TNF inhibitors was identified based on the screening of existing MMP inhibitor libraries. Further SAR optimization led to the discovery of a novel lead compound. Its synthesis, efficacy in exptl. animal models, and pharmacokinetic data are discussed.
 IT 210916-71-5P
 RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (design and synthesis of orally active inhibitors of TNF synthesis as anti-rheumatoid arthritis drugs)
 RN 210916-71-5 CAPLUS
 CN 1,3-Piperazinedicarboxamide, 4-[[[4-(4-fluorophenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-N3-hydroxy-N1,N1-dimethyl-, (3R)- (CA INDEX NAME)

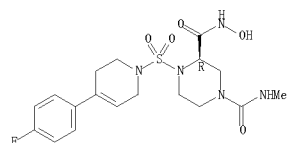
Absolute stereochemistry.



IT 210917-20-7P 210917-21-8P 642466-66-8P
 642466-69-1P 642466-71-5P 642466-74-8P
 RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (design and synthesis of orally active inhibitors of TNF synthesis as anti-rheumatoid arthritis drugs)
 RN 210917-20-7 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-fluorophenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-N-hydroxy-4-(2,2,2-trifluoroethyl)-, (2R)- (CA INDEX NAME)

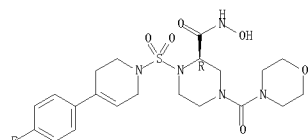
Absolute stereochemistry.

L9 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



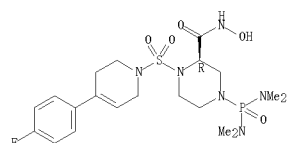
RN 642466-71-5 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-fluorophenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-N-hydroxy-4-(4-morpholinylcarbonyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



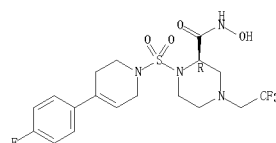
RN 642466-74-8 CAPLUS
 CN 2-Piperazinecarboxamide, 4-[[bis(dimethylamino)phosphiny]-1-[[[4-(4-fluorophenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



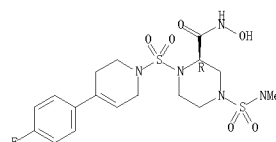
RE, CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



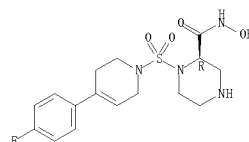
RN 210917-21-8 CAPLUS
 CN 2-Piperazinecarboxamide, 4-[[[4-(4-fluorophenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 642466-66-8 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-fluorophenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 642466-69-1 CAPLUS
 CN 1,3-Piperazinedicarboxamide, 4-[[[4-(4-fluorophenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-N3-hydroxy-N1-methyl-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.

L9 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

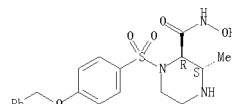
AN 2003:689649 CAPLUS
 DN 139:292229
 TI Synthesis and biological activity of piperazine-based dual MMP-13 and TNF- α converting enzyme inhibitors
 AU Letavic, Michael A.; Barberia, John T.; Carty, Thomas J.; Hardink, Joel R.; Liras, Jennifer; Lopresti-Morrow, Lori L.; Mitchell, Peter G.; Noe, Mark C.; Reeves, Lisa M.; Snow, Sheri L.; Stam, Ethan J.; Sweeney, Francis J.; Vaughn, Marcie L.; Yu, Chul H.
 CS Groton Laboratories, Pfizer Global Research and Development, Groton, CT, 06340, USA
 SO Bioorganic & Medicinal Chemistry Letters (2003), 13(19), 3243-3246
 CODEN: BMCLBS; ISSN: 0960-894X
 PB Elsevier Science B.V.
 DT Journal
 LA English
 OS CASREACT 139:292229

AB A series of novel MMP-13 and TNF- α converting enzyme inhibitors based on piperazine-2-hydroxamic acid scaffolds are described. The TACE, MMP-1, and MMP-13 activity of these inhibitors as well as the effect of substitution of the piperazine nitrogen and the P-1' benzyloxy tailpiece is discussed. Moderate in vivo activity is observed with several members of this group.

IT 609816-96-8P 609816-97-9P 609816-98-0P
 609816-99-1P 609817-00-7P 609817-01-8P
 609817-02-9P 609817-03-0P 609817-04-1P
 609817-06-2P 609817-06-3P 609817-07-4P
 609817-08-5P 609817-09-6P 609817-10-9P
 609817-11-0P 609817-12-1P 609817-13-2P
 609817-14-3P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (preparation and biol. activity of piperazine-based dual MMP-13 and TNF- α converting enzyme inhibitors)

RN 609816-96-8 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-3-methyl-1-[[[4-(phenylmethoxy)phenyl]sulfonyl]-, (2R,3S)- (CA INDEX NAME)

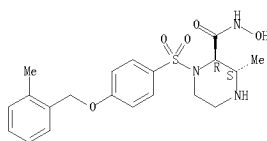
Absolute stereochemistry.



RN 609816-97-9 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-3-methyl-1-[[[4-(2-methylphenyl)methoxy]phenyl]sulfonyl]-, (2R,3S)- (CA INDEX NAME)

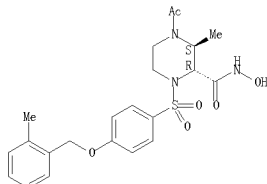
Absolute stereochemistry.

L9 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



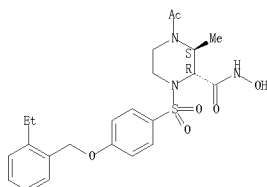
RN 609816-98-0 CAPLUS
 CN 2-Piperazinecarboxamide, 4-acetyl-N-hydroxy-3-methyl-1-[[4-[(2-methylphenyl)methoxy]phenyl]sulfonyl]-, (2R,3S)- (CA INDEX NAME)

Absolute stereochemistry.



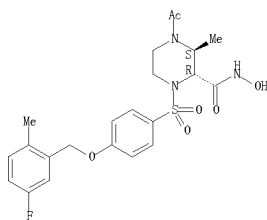
RN 609816-99-1 CAPLUS
 CN 2-Piperazinecarboxamide, 4-acetyl-1-[[4-[(2-ethylphenyl)methoxy]phenyl]sulfonyl]-N-hydroxy-3-methyl-, (2R,3S)- (CA INDEX NAME)

Absolute stereochemistry.



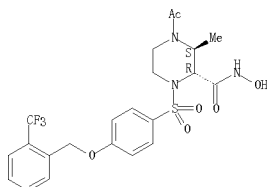
RN 609817-00-7 CAPLUS
 CN 2-Piperazinecarboxamide, 4-acetyl-1-[[4-[(5,5-

L9 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 609817-03-0 CAPLUS
 CN 2-Piperazinecarboxamide, 4-acetyl-N-hydroxy-3-methyl-1-[[4-[(2-(trifluoromethyl)phenyl)methoxy]phenyl]sulfonyl]-, (2R,3S)- (CA INDEX NAME)

Absolute stereochemistry.

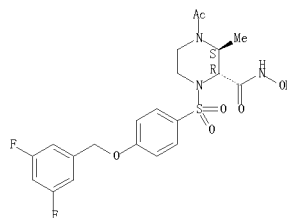


RN 609817-04-1 CAPLUS
 CN 2-Piperazinecarboxamide, 4-acetyl-N-hydroxy-3-methyl-1-[[4-[(4-isquinolinylmethoxy)phenyl]sulfonyl]-3-methyl-, (2R,3S)- (CA INDEX NAME)

Absolute stereochemistry.

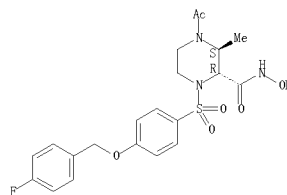
L9 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 difluorophenyl)methoxy]phenyl]sulfonyl]-N-hydroxy-3-methyl-, (2R,3S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 609817-01-8 CAPLUS
 CN 2-Piperazinecarboxamide, 4-acetyl-1-[[4-[(4-fluorophenyl)methoxy]phenyl]sulfonyl]-N-hydroxy-3-methyl-, (2R,3S)- (CA INDEX NAME)

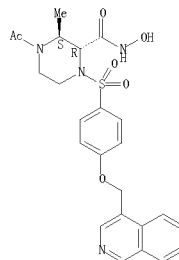
Absolute stereochemistry.



RN 609817-02-9 CAPLUS
 CN 2-Piperazinecarboxamide, 4-acetyl-1-[[4-[(5-fluoro-2-methylphenyl)methoxy]phenyl]sulfonyl]-N-hydroxy-3-methyl-, (2R,3S)- (CA INDEX NAME)

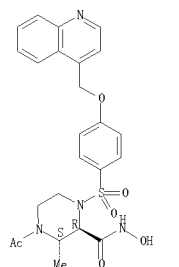
Absolute stereochemistry.

L9 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 609817-05-2 CAPLUS
 CN 2-Piperazinecarboxamide, 4-acetyl-N-hydroxy-3-methyl-1-[[4-[(4-quinolinylmethoxy)phenyl]sulfonyl]-, (2R,3S)- (CA INDEX NAME)

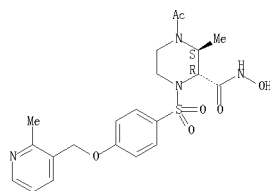
Absolute stereochemistry.



RN 609817-06-3 CAPLUS
 CN 2-Piperazinecarboxamide, 4-acetyl-N-hydroxy-3-methyl-1-[[4-[(2-methyl-3-pyridinyl)methoxy]phenyl]sulfonyl]-, (2R,3S)- (CA INDEX NAME)

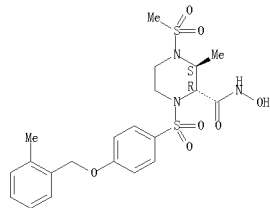
Absolute stereochemistry.

L9 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



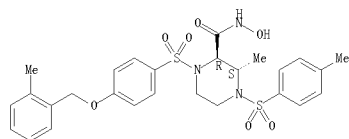
RN 609817-07-4 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-3-methyl-1-[[4-[(2-methylphenyl)methoxy]phenyl]sulfonyl]-4-(methylsulfonyl)-, (2R,3S)- (CA INDEX NAME)

Absolute stereochemistry.

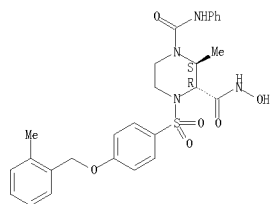


RN 609817-08-5 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-3-methyl-1-[[4-[(2-methylphenyl)methoxy]phenyl]sulfonyl]-4-[(4-methylphenyl)sulfonyl]-, (2R,3S)- (CA INDEX NAME)

Absolute stereochemistry.

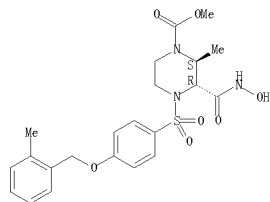


L9 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



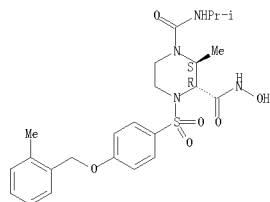
RN 609817-12-1 CAPLUS
 CN 1-Piperazinecarboxylic acid, 3-[(hydroxyamino)carbonyl]-2-methyl-4-[[4-[(2-methylphenyl)methoxy]phenyl]sulfonyl]-, methyl ester, (2S,3R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 609817-13-2 CAPLUS
 CN 1,3-Piperazinedicarboxamide, N3-hydroxy-2-methyl-N1-(1-methylethyl)-4-[[4-[(2-methylphenyl)methoxy]phenyl]sulfonyl]-, (2S,3R)- (CA INDEX NAME)

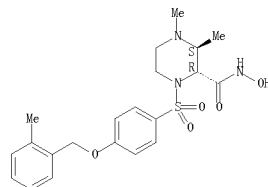
Absolute stereochemistry.



L9 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

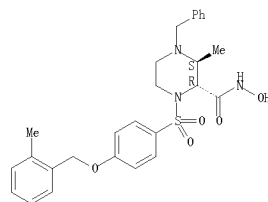
RN 609817-09-6 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-3,4-dimethyl-1-[[4-[(2-methylphenyl)methoxy]phenyl]sulfonyl]-, (2R,3S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 609817-10-9 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-3-methyl-1-[[4-[(2-methylphenyl)methoxy]phenyl]sulfonyl]-4-(phenylmethyl)-, (2R,3S)- (CA INDEX NAME)

Absolute stereochemistry.



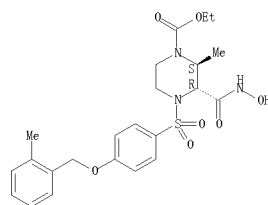
RN 609817-11-0 CAPLUS
 CN 1,3-Piperazinedicarboxamide, N3-hydroxy-2-methyl-4-[[4-[(2-methylphenyl)methoxy]phenyl]sulfonyl]-N1-phenyl-, (2S,3R)- (CA INDEX NAME)

Absolute stereochemistry.

L9 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

RN 609817-14-3 CAPLUS
 CN 1-Piperazinecarboxylic acid, 3-[(hydroxyamino)carbonyl]-2-methyl-4-[[4-[(2-methylphenyl)methoxy]phenyl]sulfonyl]-, ethyl ester, (2S,3R)- (CA INDEX NAME)

Absolute stereochemistry.



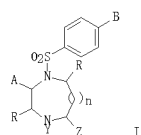
RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2002:849621 CAPLUS
 DN 137:353056
 TI Preparation of benzenesulfonylpiperazines as matrix metalloproteinase inhibitors.
 IN Chung, Yong-Jun; Lee, Keyong-Ho; Kim, Youn-Chul; Park, Ho-Jin
 PA Kolon Ind. Inc., S. Korea
 SO PCT Int. Appl., 71 pp.
 CODEN: PIIXXD2
 DT Patent
 LA English
 FAN CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002088115	A1	20021107	WO 2002-KR759	20020424
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CI, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CL, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
KR 2002083084	A	20021101	KR 2001-22767	20010426
KR 2003047127	A	20030618	KR 2001-77522	20011207
KR 2003075322	A	20030926	KR 2002-14481	20020318
AU 2002261888	A1	20021111	AU 2002-251588	20020424
EP 1359204	A1	20040218	EP 2002-720668	20020424
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004533435	T	20041104	JP 2002-585415	20020424
US 20040138206	A1	20040715	US 2003-475539	20031211
US 7223751	B2	20070629		
KR 2001-22767	A	20010426		
KR 2001-77522	A	20011207		
KR 2002-14481	A	20020318		
WO 2002-KR759	W	20020424		
MARPAT 137:353056				

OS

GI



AB Title compds. [I: n = 0-3; A = CO₂H, CONHOH, CH₂SH, CH₂OH; B = H, alkyl, NO₂, aryl, heteroaryl, pyrrolyl, halo, alkoxy, aryloxy, alkylamino, alkylthio, CONHR, NHCOR, NHCOR, NHCOR, etc.; R = H, alkyl, aryl, heteroaryl, tetragonal to octagonal cyclic compound, alkyl substituted by a tetragonal to octagonal (hetero)cyclic compound; Z = H, O, S, provided that when Z = O, S it takes a double bond; Y = H, alkyl, aryl, heteroaryl,

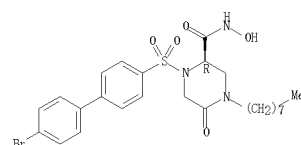
L9 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2002:312012 CAPLUS
 DN 136:340996
 TI Preparation of sulfamides as metalloprotease inhibitors
 IN Broka, Chris Allen; Campbell, Jeffrey Allen; Castelhamo, Arlindo Lucas; Chen, Jian Jeffrey; Hendricks, Robert Thann; Melnick, Michael Joseph; Walker, Keith Adrian Murray
 PA Syntex (U.S.A.) LLC, USA; Agouron Pharmaceuticals, Inc.
 SO U.S., 47 pp., Cont.-in-part of U.S. 6,143,744.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 6376506	B1	20020423	US 1999-469677	19991222
CA 2278694	A1	19980750	CA 1998-2278694	19980114
CA 2278694	C	20060926		
AU 9866140	A	19980818	AU 1998-66140	19980114
AU 730127	B2	20010222		
EP 963287	A1	19991124	EP 1998-907943	19980114
EP 963287	B1	20020911		
EP 963287	B2	20080409		
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HU 2000000941	A2	20010428	HU 2000-941	19980114
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AT 223909	T	20020915	AT 1998-907943	19980114
ZA 9900376	A	19980723	ZA 1998-376	19980116
US 5996412	A	19991207	US 1998-9951	19980121
NO 9903587	A	19990922	NO 1999-3587	19990722
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MX 9906822	A	20000131	MX 1999-6822	19990722
US 6130220	A	20001010	US 1999-369677	19990805
US 6143744	A	20001107	US 1999-369601	19990805
PRAI US 1997-36714P	P	19970123		
US 1997-62209P	P	19971016		
US 1998-9951	A3	19980121		
US 1999-369501	A2	19990805		
WO 1998-EP180	W	19980114		
MARPAT 136:340996				

OS MARPAT 136:340996
 AB Sulfamides R₁CO₂NR₂NR₃NR₄R₅ [R = OH, NHOH or N/O-alkyl or -aryl derivs.; R₁, R₂, R₃ = H, alkyl, alkenyl, haloalkyl, cycloalkyl, cycloalkylalkyl, (hetero)aryl, acylalkyl, etc.; R₄R₅ may be a (hetero)carbocycle or R₃ together with R₁ or R₂ form a heterocycloamino group; R₄, R₅ = H, alkyl, heteroalkyl, cycloalkyl, cycloalkylalkyl, aryl, (hetero)arylalkyl or -aralkenyl; R₄R₅ may be a heterocycloamino group or R₄ or R₅ together with R₃ forms an alkylene group (with provisos)], as individual isomers or mixts. of isomers, or their pharmaceutically-acceptable salts or prodrugs were prepared as inhibitors of metalloproteases. Thus, 2-(R)-[(1,2,3,4-tetrahydro-β-carboline-2-sulfonyl)amino]propionic acid (claimed compound) was prepared by treating D-alanine Me ester hydrochloride with chlorosulfonyl isocyanate/2-chloroethanol, reaction of the oxazolidone formed with 1,2,3,4-tetrahydro-β-carboline, and saponification. Metalloprotease and TNF-α inhibitory test data are tabulated.
 IT 210915-34-7P 210915-35-8P 210915-37-0P
 210915-39-2P 210915-42-7P 210915-43-8P
 210915-44-9P 210915-45-0P 210915-46-1P
 210915-47-2P 210915-49-4P 210915-50-7P
 210915-51-8P 210915-54-1P 210915-59-6P

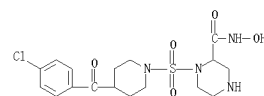
L9 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 alkyl substituted by a tetragonal to octagonal cyclic compd., alkyl substituted by a tetragonal to octagonal heterocyclyl, CONHR, NHCOR, NHCOR, NHCOR, alkyl having a double or triple bond), were prep. Thus, Me 1-(4-methoxybenzenesulfonyl)-5-oxopiperazine-2-carboxylate (prepn. given) was stirred 5 h with an. NHOH to give 45% 1-(4-methoxybenzenesulfonyl)-5-oxopiperazine-2-hydroxamic acid. This inhibited MMP-2 with IC₅₀ = 0.004 μM. I are angiogenesis controlling materials that can inhibit overexpression of matrix metalloproteinase that decomps. protein constituents in extracellular matrix and basement membranes of connective tissues.
 IT 474410-36-1P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of benzenesulfonylpiperazines as matrix metalloproteinase inhibitors)
 RN 474410-36-1 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[(4'-bromo[1,1'-biphenyl]-4-yl)sulfonyl]-N-hydroxy-4-octyl-5-oxo-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RE CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 210915-60-9P 210915-61-0P 210915-62-1P
 210915-67-6P 210915-68-7P 210915-74-5P
 210915-82-5P 210915-86-9P 210915-87-0P
 210915-88-1P 210915-89-2P 210915-90-5P
 210915-92-7P 210915-93-8P 210915-94-9P
 210915-95-0P 210915-96-1P 210915-97-2P
 210915-99-4P 210916-00-0P 210916-01-1P
 210916-03-3P 210916-04-4P 210916-05-6P
 210916-06-6P 210916-07-7P 210916-14-6P
 210916-16-8P 210916-17-9P 210916-62-4P
 210916-63-5P 210916-64-6P 210916-65-7P
 210916-70-4P 210916-71-5P 210916-73-7P
 210916-75-9P 210916-77-1P 210916-78-2P
 210916-79-3P 210916-80-6P 210917-17-2P
 416846-37-2P 416846-38-3P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (prepn. of sulfamides as metalloprotease inhibitors)
 RN 210915-34-7 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N-hydroxy-, 2,2,2-trifluoroacetate (11) (CA INDEX NAME)
 CM 1
 CRN 210915-33-6
 CMF C17 H23 Cl N4 O5 S

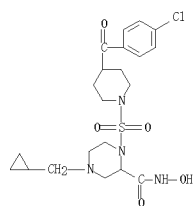


CM 2
 CRN 76-05-1
 CMF C2 H F3 O2

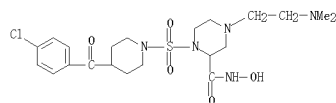


RN 210915-35-8 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-4-(cyclopropylmethyl)-N-hydroxy- (CA INDEX NAME)

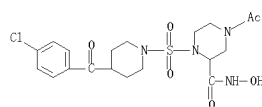
L9 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 210915-37-0 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-4-[[2-(dimethylamino)ethyl]-N-hydroxy-] (CA INDEX NAME)

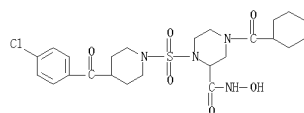


RN 210915-39-2 CAPLUS
 CN 2-Piperazinecarboxamide, 4-acetyl-1-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N-hydroxy- (CA INDEX NAME)

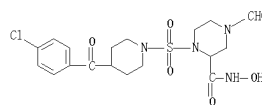


RN 210915-42-7 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-4-(2-pyridinylcarbonyl)-N-hydroxy- (CA INDEX NAME)

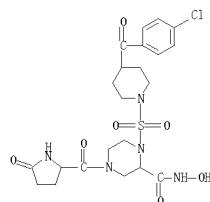
L9 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 210915-46-1 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-4-formyl-N-hydroxy- (CA INDEX NAME)



RN 210915-47-2 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-4-(5-oxo-2-pyrrolidinylcarbonyl)-N-hydroxy- (CA INDEX NAME)



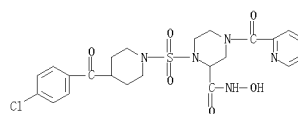
RN 210915-49-4 CAPLUS
 CN 2-Piperazinecarboxamide, 4-[[2S]-2-amino-3-methyl-1-oxobutyl]-1-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N-hydroxy-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

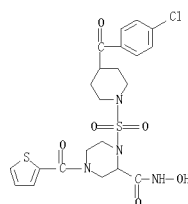
CRN 210915-48-3
 CMF C22 H32 Cl N5 O6 S

Absolute stereochemistry.

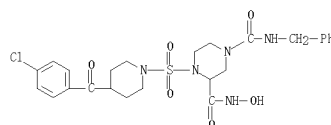
L9 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 210915-43-8 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N-hydroxy-4-(2-thienylcarbonyl)- (CA INDEX NAME)

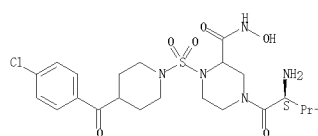


RN 210915-44-9 CAPLUS
 CN 1,3-Piperazinedicarboxamide, 4-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N3-hydroxy-N1-(phenylmethyl)- (CA INDEX NAME)



RN 210915-45-0 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-4-(cyclohexylcarbonyl)-N-hydroxy- (CA INDEX NAME)

L9 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

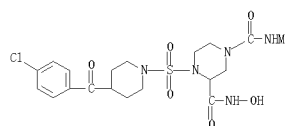


CM 2

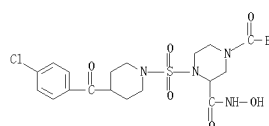
CRN 76-05-1
 CMF C2 H F3 O2



RN 210915-50-7 CAPLUS
 CN 1,3-Piperazinedicarboxamide, 4-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N3-hydroxy-N1-methyl- (CA INDEX NAME)

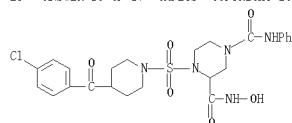


RN 210915-51-8 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N-hydroxy-4-(1-oxopropyl)- (CA INDEX NAME)

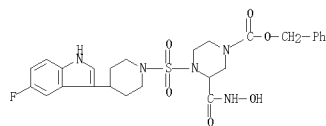


RN 210915-54-1 CAPLUS
 CN 1,3-Piperazinedicarboxamide, 4-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N3-hydroxy-N1-phenyl- (CA INDEX NAME)

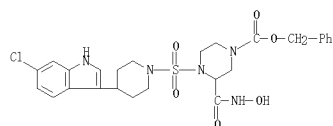
L9 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



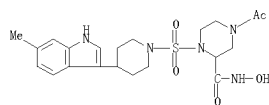
RN 210915-59-6 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[4-(5-fluoro-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, phenylmethyl ester (CA INDEX NAME)



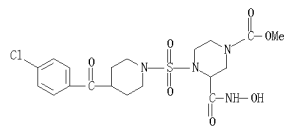
RN 210915-60-9 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[4-(6-chloro-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, phenylmethyl ester (CA INDEX NAME)



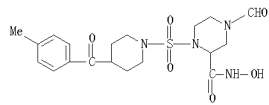
RN 210915-61-0 CAPLUS
CN 2-Piperazinecarboxamide, 4-acetyl-N-hydroxy-1-[[4-(6-methyl-1H-indol-3-yl)-1-piperidinyl]sulfonyl]- (CA INDEX NAME)



L9 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

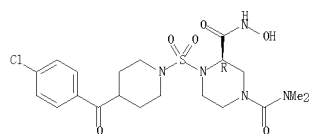


RN 210915-74-5 CAPLUS
CN 2-Piperazinecarboxamide, 4-formyl-N-hydroxy-1-[[4-(4-methylbenzoyl)-1-piperidinyl]sulfonyl]- (CA INDEX NAME)

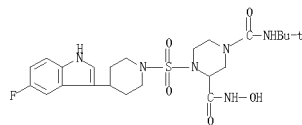


RN 210915-82-5 CAPLUS
CN 1,3-Piperazinedicarboxamide, 4-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N3-hydroxy-N1,N1-dimethyl-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



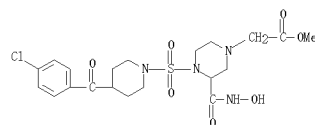
RN 210915-86-9 CAPLUS
CN 1,3-Piperazinedicarboxamide, N1-(1,1-dimethylethyl)-4-[[4-(5-fluoro-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-N3-hydroxy- (CA INDEX NAME)



RN 210915-87-0 CAPLUS
CN 1-Piperazinecarboxylic acid, 3-[(hydroxyamino)carbonyl]-4-[[4-[4,5,6,7-tetrafluoro-1-[[2-(trimethylsilyl)ethyl]sulfonyl]-1H-indol-3-yl]-1-piperidinyl]sulfonyl]-, phenylmethyl ester (CA INDEX NAME)

L9 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

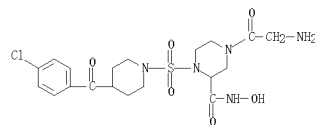
RN 210915-62-1 CAPLUS
CN 1-Piperazineacetic acid, 4-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, methyl ester (CA INDEX NAME)



RN 210915-67-6 CAPLUS
CN 2-Piperazinecarboxamide, 4-(2-aminoacetyl)-1-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N-hydroxy-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 210915-66-5
CMF C19 H26 Cl N5 O6 S



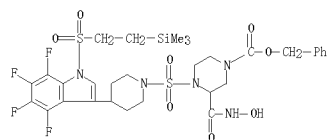
CM 2

CRN 76-05-1
CMF C2 H F3 O2

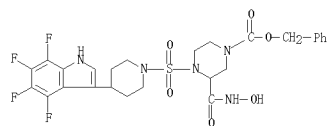


RN 210915-68-7 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, methyl ester (CA INDEX NAME)

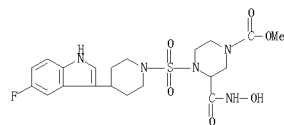
L9 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



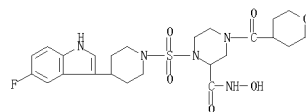
RN 210915-88-1 CAPLUS
CN 1-Piperazinecarboxylic acid, 3-[(hydroxyamino)carbonyl]-4-[[4-(4,5,6,7-tetrafluoro-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-, phenylmethyl ester (CA INDEX NAME)



RN 210915-89-2 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[4-(5-fluoro-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, methyl ester (CA INDEX NAME)

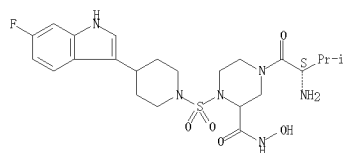


RN 210915-90-5 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(5-fluoro-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-N-hydroxy-4-[(tetrahydro-2H-pyran-4-yl)carbonyl]- (CA INDEX NAME)



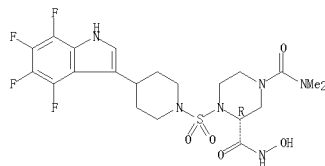
L9 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 RN 210915-92-7 CAPLUS
 CN 2-Piperazinecarboxamide, 4-[(2S)-2-amino-3-methyl-1-oxobutyl]-1-[[4-(6-fluoro-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-N-hydroxy- (CA INDEX NAME)

Absolute stereochemistry.



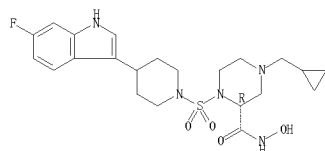
RN 210915-93-8 CAPLUS
 CN 1,3-Piperazinedicarboxamide, N3-hydroxy-N1,N1-dimethyl-4-[[4-(4,6,7-tetrafluoro-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



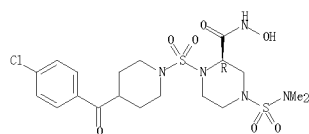
RN 210915-94-9 CAPLUS
 CN 2-Piperazinecarboxamide, 4-(cyclopropylmethyl)-1-[[4-(6-fluoro-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



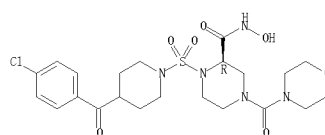
RN 210915-95-0 CAPLUS

L9 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



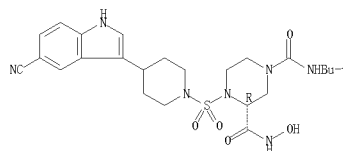
RN 210916-00-0 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N-hydroxy-4-(4-morpholinylcarbonyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 210916-01-1 CAPLUS
 CN 1,3-Piperazinedicarboxamide, 4-[[[4-(5-cyano-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-N1-(1,1-dimethylethyl)-N3-hydroxy-, (3R)- (CA INDEX NAME)

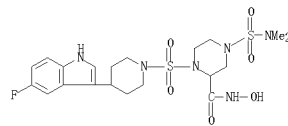
Absolute stereochemistry.



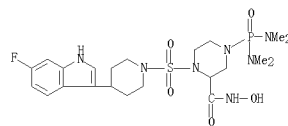
RN 210916-03-3 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N-hydroxy-4-(2-pyrazinylcarbonyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.

L9 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 CN 2-Piperazinecarboxamide, 4-[[dimethylamino)sulfonyl]-1-[[4-(6-fluoro-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-N-hydroxy- (CA INDEX NAME)

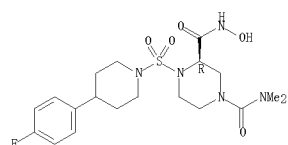


RN 210915-96-1 CAPLUS
 CN 2-Piperazinecarboxamide, 4-[bis(dimethylamino)phosphinyl]-1-[[4-(6-fluoro-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-N-hydroxy- (CA INDEX NAME)



RN 210915-97-2 CAPLUS
 CN 1,3-Piperazinedicarboxamide, 4-[[4-(4-fluorophenyl)-1-piperidinyl]sulfonyl]-N3-hydroxy-N1,N1-dimethyl-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.

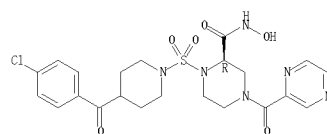


RN 210915-99-4 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-4-(dimethylamino)sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.

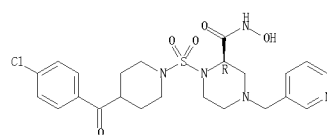


L9 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



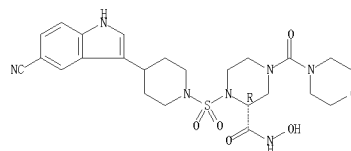
RN 210916-04-4 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N-hydroxy-4-(3-pyridinylmethyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.

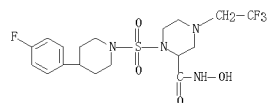


RN 210916-05-5 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(5-cyano-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-N-hydroxy-4-(4-morpholinylcarbonyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



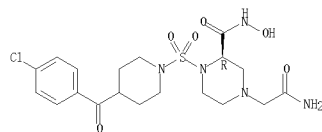
RN 210916-06-6 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-fluorophenyl)-1-piperidinyl]sulfonyl]-N-hydroxy-4-(2,2,2-trifluoroethyl)- (CA INDEX NAME)



L9 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

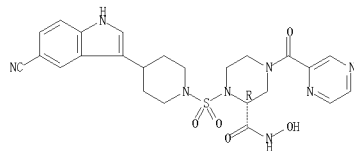
RN 210916-07-7 CAPLUS
CN 1-Piperazineacetamide, 4-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.

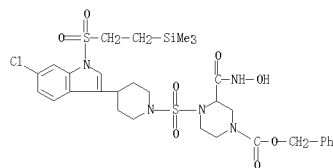


RN 210916-14-6 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(5-cyano-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-N-hydroxy-4-(2-pyrazinylcarbonyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.

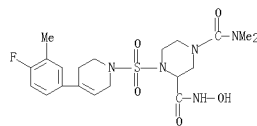


RN 210916-16-8 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[4-[6-chloro-1-[[2-(trimethylsilyl)ethyl]sulfonyl]-1H-indol-3-yl]-1-piperidinyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, phenylmethyl ester (CA INDEX NAME)

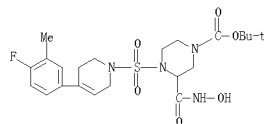


RN 210916-17-9 CAPLUS

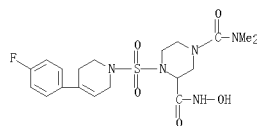
L9 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 210916-65-7 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[4-(4-fluoro-3-methylphenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

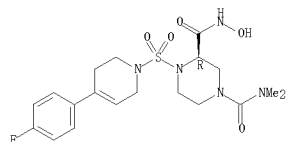


RN 210916-70-4 CAPLUS
CN 1,3-Piperazinedicarboxamide, 4-[[4-(4-fluorophenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-N3-hydroxy-N1,N1-dimethyl- (CA INDEX NAME)



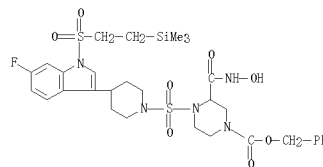
RN 210916-71-5 CAPLUS
CN 1,3-Piperazinedicarboxamide, 4-[[4-(4-fluorophenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-N3-hydroxy-N1,N1-dimethyl-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.

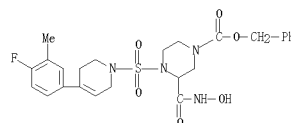


L9 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

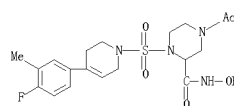
CN 1-Piperazinecarboxylic acid, 4-[[4-[6-fluoro-1-[[2-(trimethylsilyl)ethyl]sulfonyl]-1H-indol-3-yl]-1-piperidinyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, phenylmethyl ester (CA INDEX NAME)



RN 210916-62-4 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[4-(4-fluoro-3-methylphenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, phenylmethyl ester (CA INDEX NAME)



RN 210916-63-5 CAPLUS
CN 2-Piperazinecarboxamide, 4-acetyl-1-[[4-(4-fluoro-3-methylphenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-N-hydroxy- (CA INDEX NAME)

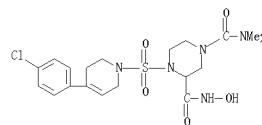


RN 210916-64-6 CAPLUS
CN 1,3-Piperazinedicarboxamide, 4-[[4-(4-fluoro-3-methylphenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-N3-hydroxy-N1,N1-dimethyl- (CA INDEX NAME)

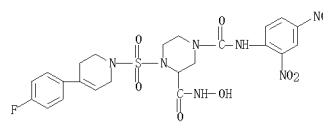


L9 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

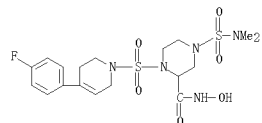
RN 210916-73-7 CAPLUS
CN 1,3-Piperazinedicarboxamide, 4-[[4-(4-chlorophenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-N3-hydroxy-N1,N1-dimethyl- (CA INDEX NAME)



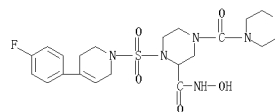
RN 210916-75-9 CAPLUS
CN 1,3-Piperazinedicarboxamide, N1-(2,4-dinitrophenyl)-4-[[4-(4-fluorophenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-N3-hydroxy- (CA INDEX NAME)



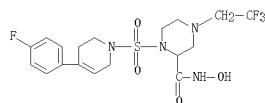
RN 210916-77-1 CAPLUS
CN 2-Piperazinecarboxamide, 4-[[4-(dimethylamino)sulfonyl]-1-[[4-(4-fluorophenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-N-hydroxy- (CA INDEX NAME)



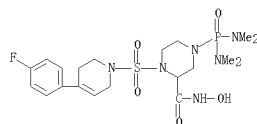
RN 210916-78-2 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-fluorophenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-N-hydroxy-4-(4-morpholinylcarbonyl)- (CA INDEX NAME)



L9 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 RN 210916-79-3 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-fluorophenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-N-hydroxy-4-(2,2,2-trifluoroethyl)- (CA INDEX NAME)

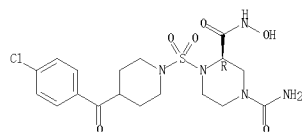


RN 210916-80-6 CAPLUS
 CN 2-Piperazinecarboxamide, 4-[bis(dimethylamino)phosphinyl]-1-[[4-(4-fluorophenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-N-hydroxy- (CA INDEX NAME)



RN 210917-17-2 CAPLUS
 CN 1,3-Piperazinedicarboxamide, 4-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N3-hydroxy-, (3R)- (CA INDEX NAME)

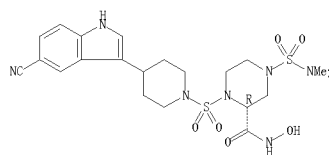
Absolute stereochemistry.



RN 416846-37-2 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(5-cyano-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-4-[(dimethylamino)sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

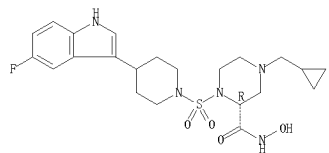
Absolute stereochemistry.

L9 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

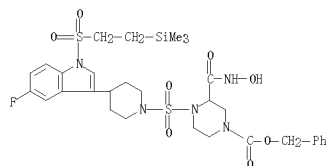


RN 416846-38-3 CAPLUS
 CN 2-Piperazinecarboxamide, 4-(cyclopropylmethyl)-1-[[4-(5-fluoro-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



IT 210917-47-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of sulfamides as metalloprotease inhibitors)
 RN 210917-47-8 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[[4-[5-fluoro-1-[[2-(trimethylsilyl)ethyl]sulfonyl]-1H-indol-3-yl]-1-piperidinyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, phenylmethyl ester (CA INDEX NAME)

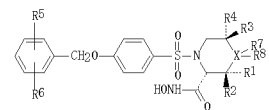


RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

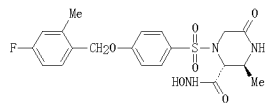
L9 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

L9 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2001:167662 CAPLUS
 DN 134:207829
 TI Preparation of N-(p-benzyloxybenzenesulfonylamino)piperidine and -piperazine derivatives as selective inhibitors of aggrecanase in osteoarthritis treatment
 IN Noe, Mark Carl; Letavic, Michael A.; Hawkins, Joel M.
 PA Pfizer Products Inc., USA
 SO Eur. Pat. Appl., 65 pp.
 CODEN: EPXDXW
 DT Patent
 LA English
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1081137	A1	20010307	EP 2000-306745	20000808
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
CA 2315481	C	20010212	CA 2000-2315481	20000810
CA 2315481	A1	20010212		
JP 2001114765	A	20010424	JP 2000-243139	20000810
JP 2003040800	A	20030213	JP 2002-210977	20000810
MX 2000PA07911	A	20050725	MX 2000-PA7911	20000811
BR 2000003568	A	20010403	BR 2000-3568	20000814
JP 2004168786	A	20040617	JP 2004-27695	20040204
US 20050227997	A1	20051013	US 2005-120376	20050503
US 7030242	B2	20000418		
PRAI US 1999-148464P	P	19990812		
JP 2000-243139	A3	20000810		
US 2000-635433	A3	20000810		
OS MARPAT 134:207829				
GI				



I



II

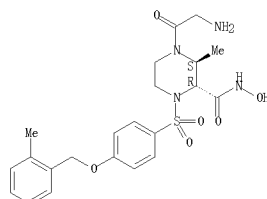
AB The title compds. (I) or therapeutically acceptable salts thereof [wherein X is carbon or nitrogen; R1 and R2 are independently selected from the group consisting of hydrogen, hydroxy, and Me, wherein at least one of R1 and R2 is methyl; R3 and R4 are independently selected from the group consisting of hydrogen, hydroxy, and Me, or R3 and R4 may be taken together to form a carbonyl group; and R5 and R6 are independent substituents in the ortho, meta, or para positions and are independently selected from the group consisting of hydrogen, halogen, cyano, Me, and ethyl; with the provisos: when X is carbon, then R7 and R8 are both hydrogen and at least one of R1, R2, R3, and R4 is hydroxy; when X is

L9 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 carbon and R5 is para-halo, then at least one of R6, R3, and R4 is not hydrogen; when X is nitrogen, then R8 is not present and R7 is hydrogen or a group of the formula: wherein, Y is -CH₂-NH₂ or -NH-CH₃; and when X is nitrogen and R7 is H, then R3 and R4 are taken together to form a carbonyl group] (e.g., II) are preferred. A method of treatment for osteoarthritis involves inhibitors of aggrecanase that demonstrate IC₅₀s of less than 20 nM and demonstrate differential potency against matrix metalloproteinases (MMPs) and a disintegrin and metalloproteinases (ADAMs or reprolysins). These compds. are useful for the treatment of a condition selected from the group consisting of osteoarthritis, joint injury, reactive arthritis, acute pyrophosphate arthritis (pseudogout), psoriatic arthritis, juvenile rheumatoid arthritis, inflammatory bowel disease, Crohn's disease, emphysema, acute respiratory distress syndrome, asthma, chronic obstructive pulmonary disease, Alzheimer's disease, organ transplant toxicity, cachexia, allergic reactions, allergic contact hypersensitivity, cancer, tissue ulceration, restenosis, periodontal disease, epidermolysis bullosa, osteoporosis, loosening of artificial joint implants, atherosclerosis, aortic aneurysm, congestive heart failure, myocardial infarction, stroke, cerebral ischemia, head trauma, spinal cord injury, neurodegenerative disorders, autoimmune disorders, Huntington's disease, Parkinson's disease, migraine, depression, peripheral neuropathy, pain, cerebral amyloid angiopathy, nootropic or cognition enhancement, amyotrophic lateral sclerosis, multiple sclerosis, ocular angiogenesis, corneal injury, muscular degeneration, abnormal wound healing, burns, diabetes, corneal scarring, scleritis, AIDS, or sepsis or septic shock, in a mammal. II showed IC₅₀ of <10, 10< to <20, >1,000, and <10 μM against aggrecanase, MMP-13, MMP-1, and TACE, resp.

IT 329040-88-2P 329040-89-3P 329040-90-6P
 329040-93-9P 329040-97-3P 329041-10-3P
 329041-48-7P 329041-50-1P 329041-51-2P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of N-(6-benzoyloxybenzenesulfonylamino)piperidine and -piperazine derivs. as selective inhibitors of aggrecanase in osteoarthritis treatment)

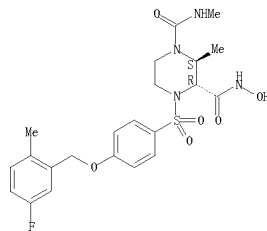
RN 329040-88-2 CAPLUS
 CN 2-Piperazinecarboxamide, 4-[(2-aminoacetyl)-N-hydroxy-3-methyl-1-[[4-[(2-methylphenyl)methoxy]phenyl]sulfonyl]-, (2R,3S)- (CA INDEX NAME)

Absolute stereochemistry.



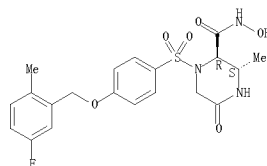
RN 329040-89-3 CAPLUS

L9 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



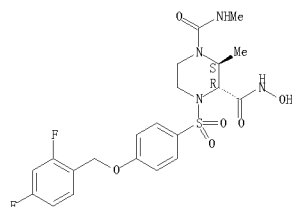
RN 329040-97-3 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-[(5-fluoro-2-methylphenyl)methoxy]phenyl]sulfonyl]-N-hydroxy-3-methyl-5-oxo-, (2R,3S)- (CA INDEX NAME)

Absolute stereochemistry.



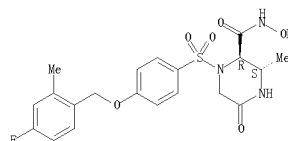
RN 329041-10-3 CAPLUS
 CN 1,3-Piperazinedicarboxamide, 4-[[4-[(2,4-difluorophenyl)methoxy]phenyl]sulfonyl]-N-hydroxy-N,1,2-dimethyl-, (2S,3R)- (CA INDEX NAME)

Absolute stereochemistry.



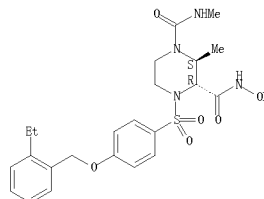
L9 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 CN 2-Piperazinecarboxamide, 1-[[4-[(4-fluoro-2-methylphenyl)methoxy]phenyl]sulfonyl]-N-hydroxy-3-methyl-5-oxo-, (2R,3S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 329040-90-6 CAPLUS
 CN 1,3-Piperazinedicarboxamide, 4-[[4-[(2-ethylphenyl)methoxy]phenyl]sulfonyl]-N-hydroxy-N,1,2-dimethyl-, (2S,3R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 329040-93-9 CAPLUS
 CN 1,3-Piperazinedicarboxamide, 4-[[4-[(5-fluoro-2-methylphenyl)methoxy]phenyl]sulfonyl]-N-hydroxy-N,1,2-dimethyl-, (2S,3R)- (CA INDEX NAME)

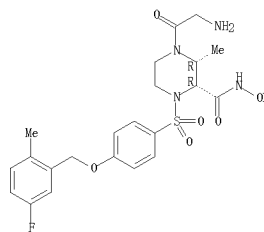
Absolute stereochemistry.



L9 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

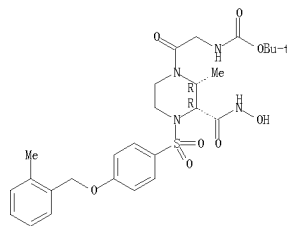
RN 329041-48-7 CAPLUS
 CN 2-Piperazinecarboxamide, 4-(2-aminoacetyl)-1-[[4-[(5-fluoro-2-methylphenyl)methoxy]phenyl]sulfonyl]-N-hydroxy-3-methyl-, (2R,3R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 329041-50-1 CAPLUS
 CN Carbamic acid, [2-[(2R,3R)-3-[(hydroxyamino)carbonyl]-2-methyl-4-[[4-[(2-methylphenyl)methoxy]phenyl]sulfonyl]-1-piperazinyl]-2-oxoethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

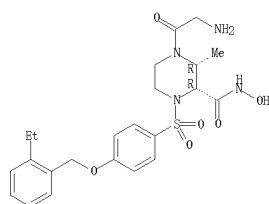


RN 329041-51-2 CAPLUS
 CN 2-Piperazinecarboxamide, 4-(2-aminoacetyl)-1-[[4-[(2-ethylphenyl)methoxy]phenyl]sulfonyl]-N-hydroxy-3-methyl-, (2R,3R)- (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



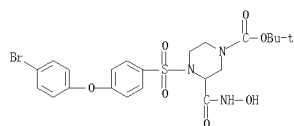
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2000:833554 CAPLUS
DN 134:4950
TI Preparation of 1-phenylsulfonylazine-2-hydroxamates as metalloproteinase inhibitors
IN Zook, Scott E.; Dagnino, Raymond, Jr.; Deason, Michael E.; Bender, Steven L.; Melnick, Michael J.
PA Agouron Pharmaceuticals, Inc., USA
SO U.S., 45 pb., Cont.-in-part of U.S. 5,753,653.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 3

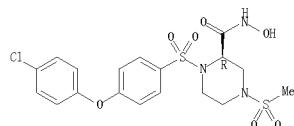
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6153757	A	20001128	US 1998-11971	19980629
WO 9720824	A1	19970612	WO 1996-US19328	19961205
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GR, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
US 5753653	A	19980519	US 1996-759713	19961206
US 6500948	B1	20021231	US 2000-675555	20000929
US 20030130506	A1	20030710	US 2002-298842	20021118
US 6849732	B2	20060201		
US 1996-41496P	P	19961208		
WO 1996-US19328	W	19961205		
US 1996-759713	A2	19961206		
US 1995-569766	A2	19951208		
US 1998-11971	A3	19980629		
US 2000-675555	A3	20000929		
OS	MARPAT 134:4950			
AB	RZ1S02NR1CHR2CONHOH [I; R = (hetero)aryl; R1R2 = atoms to complete a heterocyclic ring; Z = O or S; Z1 = 1,4-phenylene] were prepared Thus, (R)-N-hydroxy-1-[4-(4-chlorophenoxy)benzenesulfonyl]-4-(tert-butoxycarbonyl)piperazine-2-carboxamide (m.p. 94.6°), prepared from (R)-piperazine-2-carboxylic acid in 4 steps, demonstrated 77.6% inhibition of lung metastases in a female mouse Lewis lung carcinoma model at 50 mg/kg (i.p.).			
IT	192329-44-5P 192329-52-5P 192329-79-6P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses) (preparation of heterocyclic metalloproteinase-inhibitor antitumor agents and antiarthritics)			
RN	192329-44-5 CAPLUS			
CN	1-Piperazinecarboxylic acid, 4-[[4-(4-bromophenoxy)phenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)			

L9 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



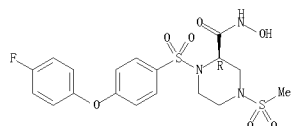
RN 192329-52-5 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorophenoxy)phenyl]sulfonyl]-N-hydroxy-4-(methylsulfonyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 192329-79-6 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-fluorophenoxy)phenyl]sulfonyl]-N-hydroxy-4-(methylsulfonyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.

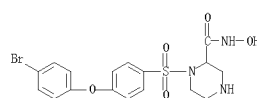


IT 192329-45-6P 192329-46-7P 192329-47-8P
192329-49-0P 192329-50-3P 192329-51-4P
192329-60-5P 192329-65-0P 192329-68-3P
192329-69-4P 192329-70-7P 192329-71-8P
192329-73-0P 192329-74-1P 192329-75-2P
192329-76-3P 192329-98-9P 192330-14-6P
192330-15-7P 192330-16-8P 192330-17-9P
192330-18-0P 192330-19-1P 192330-20-4P
192330-21-5P 192330-22-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of heterocyclic metalloproteinase-inhibitor antitumor agents and antiarthritics)

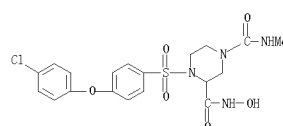
RN 192329-45-6 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-bromophenoxy)phenyl]sulfonyl]-N-hydroxy-, hydrochloride (1:1) (CA INDEX NAME)

L9 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

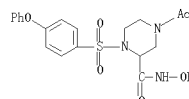


● HCl

RN 192329-46-7 CAPLUS
CN 1,3-Piperazinedicarboxamide, 4-[[4-(4-chlorophenoxy)phenyl]sulfonyl]-N3-hydroxy-N1-methyl- (CA INDEX NAME)

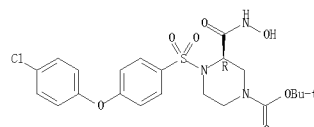


RN 192329-47-8 CAPLUS
CN 2-Piperazinecarboxamide, 4-acetyl-N-hydroxy-1-[4-(phenoxyphenyl)sulfonyl]- (CA INDEX NAME)



RN 192329-49-0 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[4-(4-chlorophenoxy)phenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, 1,1-dimethylethyl ester, (3R)- (CA INDEX NAME)

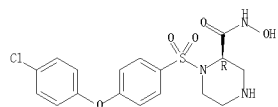
Absolute stereochemistry.



RN 192329-50-3 CAPLUS

L9 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)phenyl]sulfonyl]-N-hydroxy-
 hydrochloride (1:1), (2R)- (CA INDEX NAME)

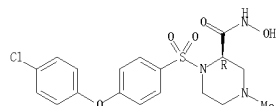
Absolute stereochemistry.



● HCl

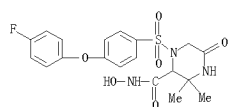
RN 192329-51-4 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)phenyl]sulfonyl]-N-hydroxy-
 4-methyl-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

Absolute stereochemistry.



● HCl

RN 192329-60-5 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-fluorophenoxy)phenyl]sulfonyl]-N-hydroxy-
 3,3-dimethyl-5-oxo- (CA INDEX NAME)

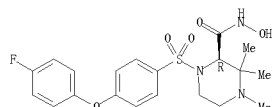


RN 192329-65-0 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)phenyl]sulfonyl]-N-hydroxy-
 3,3-dimethyl-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.

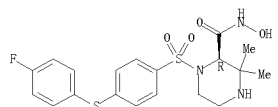
L9 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 3,3,4-trimethyl-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



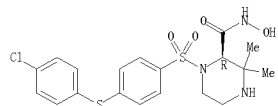
RN 192329-73-0 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-[(4-fluorophenyl)thio]phenyl]sulfonyl]-N-
 hydroxy-3,3-dimethyl-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



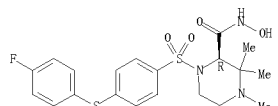
RN 192329-74-1 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-[(4-chlorophenyl)thio]phenyl]sulfonyl]-N-
 hydroxy-3,3-dimethyl-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



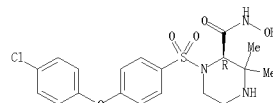
RN 192329-75-2 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-[(4-fluorophenyl)thio]phenyl]sulfonyl]-N-
 hydroxy-3,3,4-trimethyl-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



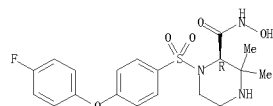
RN 192329-76-3 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-[(4-chlorophenyl)thio]phenyl]sulfonyl]-N-

L9 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



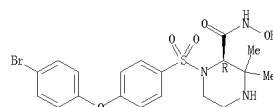
RN 192329-68-3 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-fluorophenoxy)phenyl]sulfonyl]-N-hydroxy-
 3,3-dimethyl-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



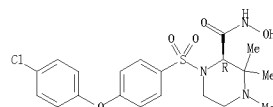
RN 192329-69-4 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-bromophenoxy)phenyl]sulfonyl]-N-hydroxy-
 3,3-dimethyl-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 192329-70-7 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorophenoxy)phenyl]sulfonyl]-N-hydroxy-
 3,3,4-trimethyl-, (2R)- (CA INDEX NAME)

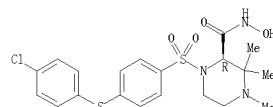
Absolute stereochemistry.



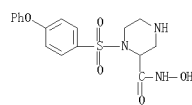
RN 192329-71-8 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-fluorophenoxy)phenyl]sulfonyl]-N-hydroxy-

L9 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 hydroxy-3,3,4-trimethyl-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.

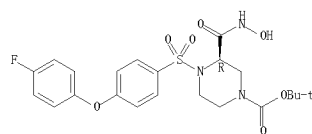


RN 192329-98-9 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-1-[(4-phenoxyphenyl)sulfonyl]- (CA
 INDEX NAME)

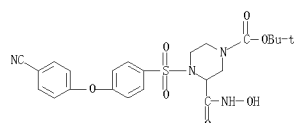


RN 192330-14-6 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[[[4-(4-fluorophenoxy)phenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, 1,1-dimethylethyl ester, (3R)- (CA INDEX NAME)

Absolute stereochemistry.

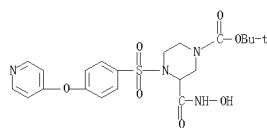


RN 192330-15-7 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[[[4-(4-cyanophenoxy)phenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



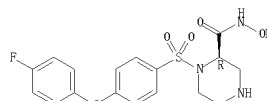
RN 192330-16-8 CAPLUS
 CN 1-Piperazinecarboxylic acid, 3-[(hydroxyamino)carbonyl]-4-[[[4-(4-

L9 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
pyridinyloxy)phenyl)sulfonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



RN 192330-17-9 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-fluorophenoxy)phenyl]sulfonyl]-N-hydroxy-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

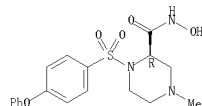
Absolute stereochemistry.



● HCl

RN 192330-18-0 CAPLUS
CN 2-Piperazinecarboxamide, N-hydroxy-4-methyl-1-[[4-(phenoxyphenyl)sulfonyl]-, (2R)- (CA INDEX NAME)

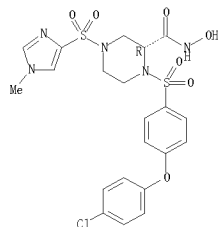
Absolute stereochemistry.



RN 192330-19-1 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[4-(4-chlorophenoxy)phenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, ethyl ester, hydrochloride (1:1), (3R)- (CA INDEX NAME)

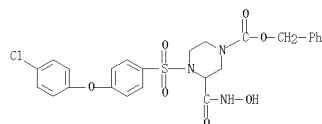
Absolute stereochemistry.

L9 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



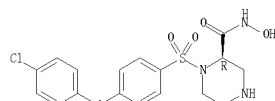
IT 192329-99-0F 192330-23-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of heterocyclic metalloproteinase-inhibitor antitumor agents and antiarthritics)

RN 192329-99-0 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[4-(4-chlorophenoxy)phenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, phenylmethyl ester (CA INDEX NAME)



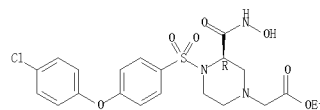
RN 192330-23-7 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorophenoxy)phenyl]sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 124 THERE ARE 124 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

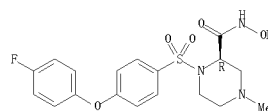
L9 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



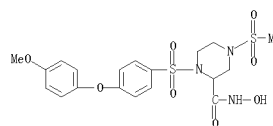
● HCl

RN 192330-20-4 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-fluorophenoxy)phenyl]sulfonyl]-N-hydroxy-4-methyl-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 192330-21-5 CAPLUS
CN 2-Piperazinecarboxamide, N-hydroxy-1-[[4-(4-methoxyphenoxy)phenyl]sulfonyl]-4-(methylsulfonyl)- (CA INDEX NAME)



RN 192330-22-6 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorophenoxy)phenyl]sulfonyl]-N-hydroxy-4-[(1-methyl-1H-imidazol-4-yl)sulfonyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.

L9 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

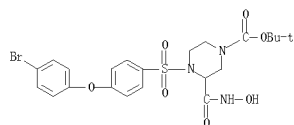
AN 2000:84604 CAPLUS
IN 132:141961
TI Pharmaceutical compositions containing ACAT and MMP inhibitors for the treatment of atherosclerotic lesions
IN Bocan, Thomas Michael Andrew
PA Warner-Lambert Company, USA
SO PCT Int. Appl., 222 pp.
CODEN: PIXXD2

DT Patent	PATENT NO.					KIND	DATE	APPLICATION NO.	DATE
LA English	PI WO 2000004892					A2	20000203	WO 1999-US13948	19990618
FAN.CNT 1	WO 2000004892					A3	20000618		
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	RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, CA, GN, GW, ML, MR, NE, SN, TD, TG							
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	AU 9947017	A	20000214	AU 1999-47017	19990618				
	BR 9912296	A	20010417	BR 1999-12296	19990618				
	EP 1098662	A2	20010616	EP 1999-930483	19990618				
	R:	AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO							
	TR 200100205	T2	20010521	TR 2001-205	19990618				
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	HU 2001002880	A2	20020629	HU 2001-2880	19990618				
	HU 2001002880	A3	20021128						
	JP 2002521328	T	20020716	JP 2000-560855	19990618				
	IN 2001MN00019	A	20050401	IN 2001-MN19	20010104				
	ZA 2001000294	A	20020110	ZA 2001-294	20010110				
	BG 105162	A	20011231	BG 2001-105162	20010117				
	NO 2001000291	A	20010118	NO 2001-291	20010118				
	HR 2001000035	A1	20020430	HR 2001-35	20010119				
	MX 2001PA00780	A	20010521	MX 2001-PA780	20010122				
	IN 2001MN00455	A	20050318	IN 2001-MN455	20010424				
FRA1 US 1998-93639P	P	19980721							
WO 1999-US13948	W	19990618							

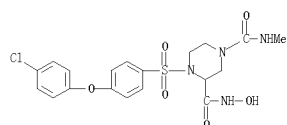
AB Acyl-CoA:cholesterol acyltransferase (ACAT) and matrix metalloproteinase (MMP) inhibitors are administered for the reduction of both the macrophage and smooth muscle cell component of atherosclerotic lesions, thus impairing the expansion of existing lesions and the development of new lesions and for the prevention of plaque rupture and the promotion of lesion regression in a mammal. The direct antiatherosclerotic potential of the combination of ACAT inhibitor, [2,4,6-tris-(1-methyl)phenyl]acetyl]-2,6-bis(1-methylethyl)phenyl sulfamic acid, and the HMG-CoA reductase inhibitor, simvastatin, in rabbits was studied. A tablet contained 2-(4'-bromobiphenyl-4-sulfonylamino)-3-Me butyric acid 25 ACAT compound lactose 50, corn starch 20, and magnesium stearate 5 mg.

IT 192329-44-5 192329-46-7 192329-47-8
192329-60-5 192329-98-9 207796-08-2
207795-09-3 207795-11-7 256645-85-9
256646-32-9 256646-35-2 256646-47-6
256646-53-4 256647-04-8
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmaceutical compns. containing ACAT and MMP inhibitors for treatment of atherosclerotic lesions)

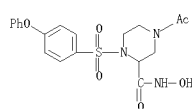
L9 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 RN 192329-44-5 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[[4-(4-bromophenoxy)phenyl]sulfonyl]-3-
 [(hydroxyamino)carbonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



RN 192329-46-7 CAPLUS
 CN 1,3-Piperazinedicarboxamide, 4-[[4-(4-chlorophenoxy)phenyl]sulfonyl]-N3-hydroxy-N1-methyl- (CA INDEX NAME)



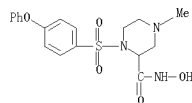
RN 192329-47-8 CAPLUS
 CN 2-Piperazinecarboxamide, 4-acetyl-N-hydroxy-1-[(4-phenoxyphenyl)sulfonyl]- (CA INDEX NAME)



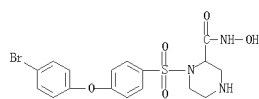
RN 192329-60-5 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-fluorophenoxy)phenyl]sulfonyl]-N-hydroxy-3,3-dimethyl-5-oxo- (CA INDEX NAME)



L9 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

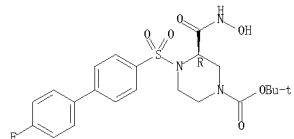


RN 256645-85-9 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-bromophenoxy)phenyl]sulfonyl]-N-hydroxy- (CA INDEX NAME)



RN 256646-32-9 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[[4'-(4-fluoro[1,1'-biphenyl]-4-yl)sulfonyl]-3-[(hydroxyamino)carbonyl]-, 1,1-dimethylethyl ester, (3R)- (CA INDEX NAME)

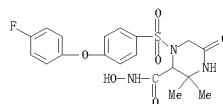
Absolute stereochemistry.



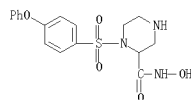
RN 256646-35-2 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-fluoro[1,1'-biphenyl]-4-yl)sulfonyl]-N-hydroxy-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

Absolute stereochemistry.

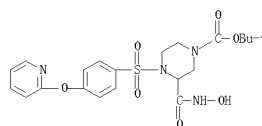
L9 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



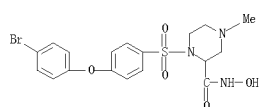
RN 192329-98-9 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-1-[(4-phenoxyphenyl)sulfonyl]- (CA INDEX NAME)



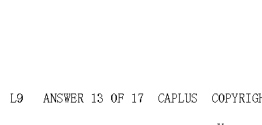
RN 207795-08-2 CAPLUS
 CN 1-Piperazinecarboxylic acid, 3-[(hydroxyamino)carbonyl]-4-[[4-(2-pyridinyloxy)phenyl]sulfonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



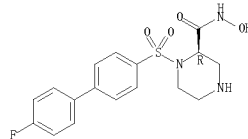
RN 207795-09-3 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-bromophenoxy)phenyl]sulfonyl]-N-hydroxy-4-methyl- (CA INDEX NAME)



RN 207795-11-7 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-4-methyl-1-[(4-phenoxyphenyl)sulfonyl]- (CA INDEX NAME)



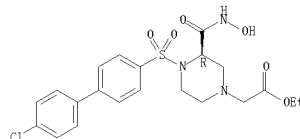
L9 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



● HCl

RN 256646-47-6 CAPLUS
 CN 1-Piperazineacetic acid, 4-[[4'-(4-chloro[1,1'-biphenyl]-4-yl)sulfonyl]-3-[(hydroxyamino)carbonyl]-, ethyl ester, hydrochloride (1:1), (3R)- (CA INDEX NAME)

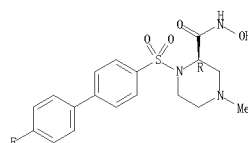
Absolute stereochemistry.



● HCl

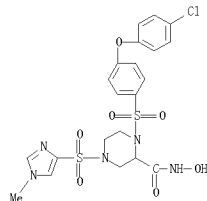
RN 256646-53-4 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-fluoro[1,1'-biphenyl]-4-yl)sulfonyl]-N-hydroxy-4-methyl-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 256647-04-8 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorophenoxy)phenyl]sulfonyl]-N-hydroxy-4-[(1-methyl-1H-imidazol-4-yl)sulfonyl]- (CA INDEX NAME)

L9 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

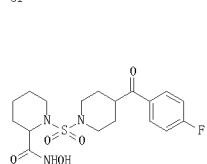


L9 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1998:498526 CAPLUS
 DN 129:148991
 OREF 129:30373a,30376a
 TI Preparation of N-sulfamoylpiperidine-2-hydroxamic acids and analogs as metalloproteinase inhibitors
 IN Broka, Chris Allen; Campbell, Jeffrey Allen; Castelano, Arlindo Lucas; Chen, Jian Jeffrey; Hendricks, Robert Than; Melnick, Michael Joseph; Walker, Keith Adrian Murray
 PA F. Hoffmann-La Roche A.-G., Switz.; Agouron Pharmaceuticals, Inc.
 SO Ger. Offen., 84 pp.
 CODEN: GWXBXK
 DT Patent
 LA German
 FAN CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 19802350	A1	19980730	DE 1998-19802350	19980122
CA 2278694	A1	19980730	CA 1998-2278694	19980114
CA 2278694	C	20060926		
WO 9832748	A1	19980730	WO 1998-EP180	19980114
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AU 9866140	A1	19980818	AU 1998-66140	19980114
AU 730127	B2	20010222		
EP 968287	A1	19991124	EP 1998-907943	19980114
EP 968287	B1	20020911		
EP 968287	B2	20080409		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, RO, MK				
BR 9607508	A	20000321	BR 1998-7508	19980114
NZ 336625	A	20010427	NZ 1998-336625	19980114
HU 2000000941	A2	20010428	HU 2000-941	19980114
HU 2000000941	A3	20020628		
JP 2001523222	T	20011120	JP 1998-531537	19980114
JP 3563411	B2	20040908		
AT 223909	T	20020915	AT 1998-907943	19980114
CN 1093125	C	20021023	CN 1998-805233	19980114
PT 968287	T	20021231	PT 1998-907943	19980114
ES 2185331	T3	20050316	ES 1998-907943	19980114
ZA 9800676	A	19980723	ZA 1998-576	19980116
IN 1998MA00105	A	20050304	IN 1998-MA105	19980116
IT 1298163	B1	19991220	IT 1998-M191	19980120
FR 2758559	A1	19980724	FR 1998-601	19980121
GB 2321641	A	19980806	GB 1998-1393	19980122
GB 2321641	B	20010401		
ES 2136037	A1	19991101	ES 1998-113	19980122
ES 2136037	B1	20001116		
NO 9903587	A	19990922	NO 1999-3587	19990722
NO 313635	B1	20021104		
MX 9906822	A	20000131	MX 1999-6822	19990722
PRAI US 1997-36714P	P	19970123		
US 1997-62204P	P	19970123		
WO 1998-EP180	W	19980114		
OS MARPAT 129:148991				

L9 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



AB R1OCOR1R2NR3SO2NR2OR21 [I; R1-R3 = H, (CO-interrupted) alkyl, heterocyclyl(alkyl), (hetero)aryl(alkyl), etc.; R1R2, R1R3, R2R3 = atoms to complete a ring; R10 = NR10R12; R11, R12 = H or (ar)alkyl; R20, R21 = H, alkyl, (hetero)aryl[alk(en)yl], etc.; NR2OR21heterocyclyl] were prepared. Thus, (R)-1-[4-(4-chlorobenzoyl)piperidin-1-sulfonyl]piperidine-2-carboxylic acid was amidated by H2NOCMe3 and the product deprotected to give title compound (R)-II. Data for biol. activity of I were given.

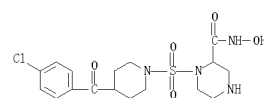
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 210916-79-3P 210916-80-6P 210917-17-2P
 210917-19-4P 210917-20-7P 210917-21-8P
 NL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of N-sulfamoylpiperidine-2-hydroxamic acids and analogs as metalloproteinase inhibitors)

RN 210915-34-7 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-4-hydroxy-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 210915-33-6
 CMF C17 H23 Cl N4 O5 S

L9 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

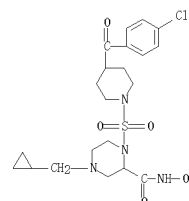


CM 2

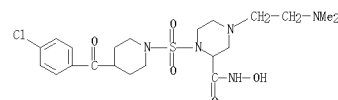
CRN 76-05-1
 CMF C2 H F5 O2



RN 210915-35-8 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-4-(cyclopropylmethyl)-N-hydroxy- (CA INDEX NAME)

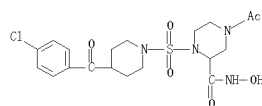


RN 210915-37-0 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-4-(2-(dimethylamino)ethyl)-N-hydroxy- (CA INDEX NAME)

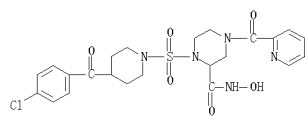


RN 210915-39-2 CAPLUS
 CN 2-Piperazinecarboxamide, 4-acetyl-1-[[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N-hydroxy- (CA INDEX NAME)

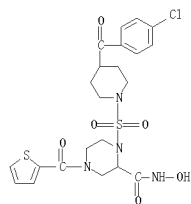
L9 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 210915-42-7 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N-hydroxy-4-(2-pyridinylcarbonyl)- (CA INDEX NAME)

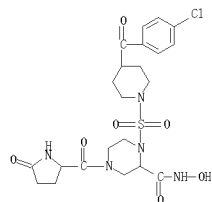


RN 210915-43-8 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N-hydroxy-4-(2-thienylcarbonyl)- (CA INDEX NAME)



RN 210915-44-9 CAPLUS
 CN 1,3-Piperazinedicarboxamide, 4-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N3-hydroxy-N1-(phenylmethyl)- (CA INDEX NAME)

L9 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

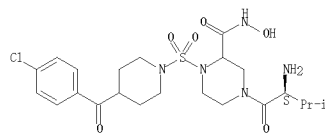


RN 210915-49-4 CAPLUS
 CN 2-Piperazinecarboxamide, 4-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N-hydroxy-2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

CM 1

CRN 210915-48-3
 CMF C22 H32 Cl N5 O6 S

Absolute stereochemistry.



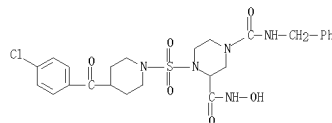
CM 2

CRN 76-05-1
 CMF C2 H F3 O2

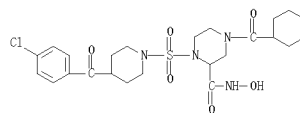


RN 210915-50-7 CAPLUS
 CN 1,3-Piperazinedicarboxylic acid, 4-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N3-hydroxy-N1-methyl- (CA INDEX NAME)

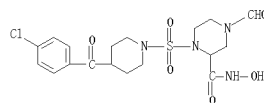
L9 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 210915-45-0 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-4-(cyclohexylcarbonyl)-N-hydroxy- (CA INDEX NAME)

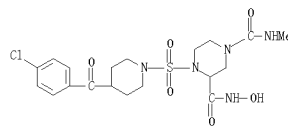


RN 210915-46-1 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-4-formyl-N-hydroxy- (CA INDEX NAME)

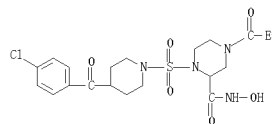


RN 210915-47-2 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N-hydroxy-4-[(5-oxo-2-pyrrolidinyl)carbonyl]- (CA INDEX NAME)

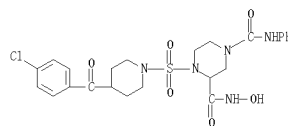
L9 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



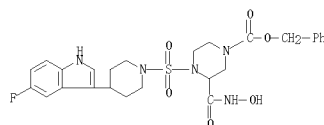
RN 210915-51-8 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N-hydroxy-4-(1-oxopropyl)- (CA INDEX NAME)



RN 210915-54-1 CAPLUS
 CN 1,3-Piperazinedicarboxamide, 4-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N3-hydroxy-N1-phenyl- (CA INDEX NAME)

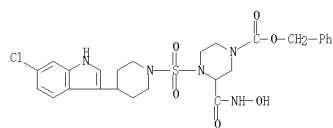


RN 210915-59-6 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[[4-(5-fluoro-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, phenylmethyl ester (CA INDEX NAME)

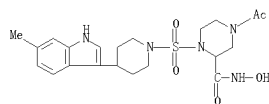


RN 210915-60-9 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[[4-(6-chloro-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, phenylmethyl ester (CA INDEX NAME)

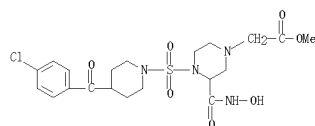
L9 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
INDEX NAME)



RN 210915-61-0 CAPLUS
CN 2-Piperazinecarboxamide, 4-acetyl-N-hydroxy-1-[[4-(6-methyl-1H-indol-3-yl)-1-piperidinyl]sulfonyl]- (CA INDEX NAME)



RN 210915-62-1 CAPLUS
CN 1-Piperazineacetic acid, 4-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, methyl ester (CA INDEX NAME)

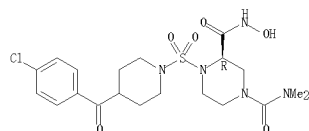


RN 210915-67-6 CAPLUS
CN 2-Piperazinecarboxamide, 4-(2-aminoacetyl)-1-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N-hydroxy-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

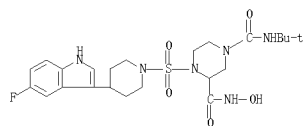
CM 1

CRN 210915-66-5
CMF C19 H26 Cl N5 O6 S

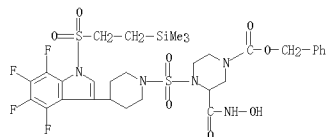
L9 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
Absolute stereochemistry.



RN 210915-86-9 CAPLUS
CN 1,3-Piperazinedicarboxamide, N1-(1,1-dimethylethyl)-4-[[4-(5-fluoro-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-N3-hydroxy- (CA INDEX NAME)

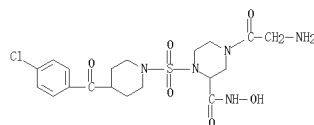


RN 210915-87-0 CAPLUS
CN 1-Piperazinecarboxylic acid, 3-[[4-(hydroxyamino)carbonyl]-4-[[4-(4,5,6,7-tetrafluoro-1-[[2-(trimethylsilyl)ethyl]sulfonyl]-1H-indol-3-yl]-1-piperidinyl]sulfonyl]-, phenylmethyl ester (CA INDEX NAME)



RN 210915-88-1 CAPLUS
CN 1-Piperazinecarboxylic acid, 3-[[4-(hydroxyamino)carbonyl]-4-[[4-(4,5,6,7-tetrafluoro-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-, phenylmethyl ester (CA INDEX NAME)

L9 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

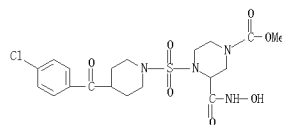


CM 2

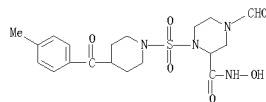
CRN 76-05-1
CMF C2 H F5 O2



RN 210915-68-7 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, methyl ester (CA INDEX NAME)

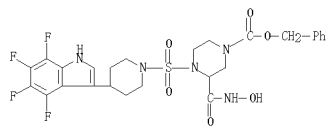


RN 210915-74-5 CAPLUS
CN 2-Piperazinecarboxamide, 4-formyl-N-hydroxy-1-[[4-(4-methylbenzoyl)-1-piperidinyl]sulfonyl]- (CA INDEX NAME)

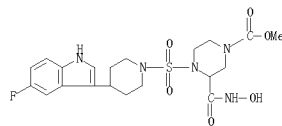


RN 210915-82-5 CAPLUS
CN 1,3-Piperazinedicarboxamide, 4-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N3-hydroxy-N1,N1-dimethyl-, (3R)- (CA INDEX NAME)

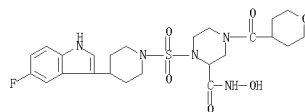
L9 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 210915-89-2 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[4-(5-fluoro-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, methyl ester (CA INDEX NAME)

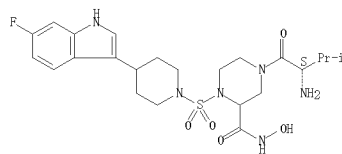


RN 210915-90-5 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(5-fluoro-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-N-hydroxy-4-[[4-(4,5,6,7-tetrafluoro-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-, phenylmethyl ester (CA INDEX NAME)



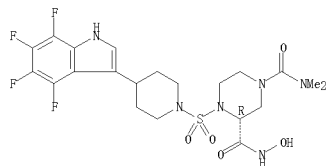
RN 210915-92-7 CAPLUS
CN 2-Piperazinecarboxamide, 4-[[4-(2S)-2-amino-3-methyl-1-oxobutyl]-1-[[4-(6-fluoro-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-N-hydroxy- (CA INDEX NAME)

Absolute stereochemistry.



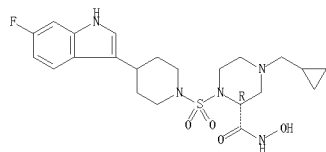
L9 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 RN 210915-90-8 CAPLUS
 CN 1,3-Piperazinedicarboxamide, N3-hydroxy-N1,N1-dimethyl-4-[[4-(4,5,6,7-tetrafluoro-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.

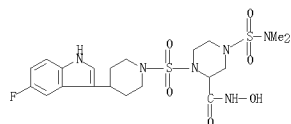


RN 210915-94-9 CAPLUS
 CN 2-Piperazinecarboxamide, 4-(cyclopropylmethyl)-1-[[4-(6-fluoro-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.

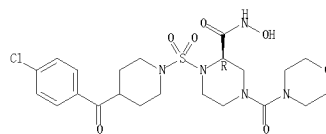


RN 210915-95-0 CAPLUS
 CN 2-Piperazinecarboxamide, 4-[(dimethylamino)sulfonyl]-1-[[4-(5-fluoro-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-N-hydroxy-, (CA INDEX NAME)



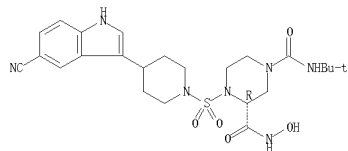
RN 210915-96-1 CAPLUS
 CN 2-Piperazinecarboxamide, 4-[bis(dimethylamino)phosphinyl]-1-[[4-(6-fluoro-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-N-hydroxy-, (CA INDEX NAME)

L9 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



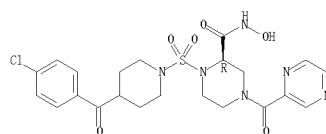
RN 210916-01-1 CAPLUS
 CN 1,3-Piperazinedicarboxamide, 4-[[[4-(6-cyano-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-N1-(1,1-dimethylethyl)-N3-hydroxy-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 210916-03-3 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N-hydroxy-4-(2-pyrazinylcarbonyl)-, (2R)- (CA INDEX NAME)

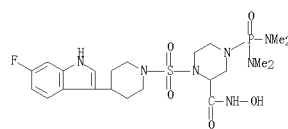
Absolute stereochemistry.



RN 210916-04-4 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N-hydroxy-4-(3-pyridinylmethyl)-, (2R)- (CA INDEX NAME)

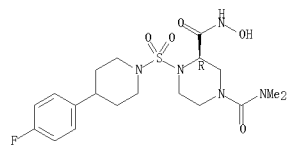
Absolute stereochemistry.

L9 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



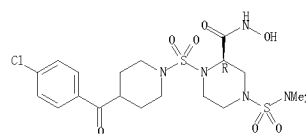
RN 210915-97-2 CAPLUS
 CN 1,3-Piperazinedicarboxamide, 4-[[[4-(4-fluorophenyl)-1-piperidinyl]sulfonyl]-N3-hydroxy-N1,N1-dimethyl-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



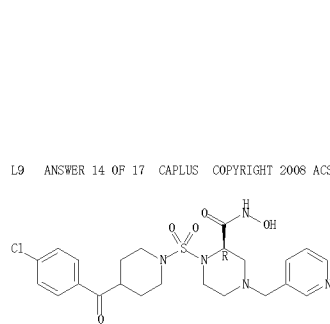
RN 210915-99-4 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-4-(dimethylamino)sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



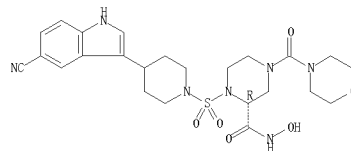
RN 210916-00-0 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N-hydroxy-4-(4-morpholinylcarbonyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.

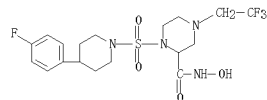


RN 210916-05-5 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(5-cyano-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-N-hydroxy-4-(4-morpholinylcarbonyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.

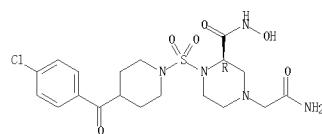


RN 210916-06-6 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[4-(4-fluorophenyl)-1-piperidinyl]sulfonyl]-N-hydroxy-4-(2,2,2-trifluoroethyl)-, (CA INDEX NAME)



RN 210916-07-7 CAPLUS
 CN 1-Piperazineacetamide, 4-[[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-3-(hydroxyamino)carbonyl]-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.

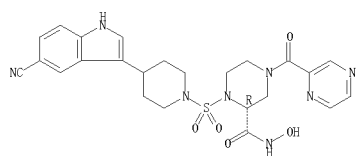


L9 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

RN 210916-14-6 CAPLUS

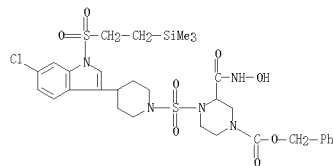
CN 2-Piperazinecarboxamide, 1-[[4-(5-cyano-1H-indol-3-yl)-1-piperidinyl]sulfonyl]-N-hydroxy-4-(2-pyrazinylcarbonyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



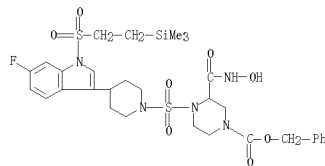
RN 210916-16-8 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[[4-[6-chloro-1-[[2-(trimethylsilyl)ethyl]sulfonyl]-1H-indol-3-yl]-1-piperidinyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, phenylmethyl ester (CA INDEX NAME)

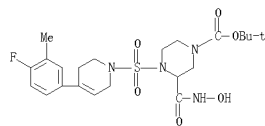


RN 210916-17-9 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[[4-[6-fluoro-1-[[2-(trimethylsilyl)ethyl]sulfonyl]-1H-indol-3-yl]-1-piperidinyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, phenylmethyl ester (CA INDEX NAME)

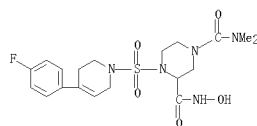


L9 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 210916-70-4 CAPLUS

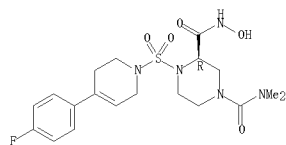
CN 1,3-Piperazinedicarboxamide, 4-[[4-(4-fluorophenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-N3-hydroxy-N1,N1-dimethyl-, (CA INDEX NAME)



RN 210916-71-5 CAPLUS

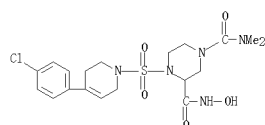
CN 1,3-Piperazinedicarboxamide, 4-[[4-(4-fluorophenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-N3-hydroxy-N1,N1-dimethyl-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 210916-73-7 CAPLUS

CN 1,3-Piperazinedicarboxamide, 4-[[4-(4-chlorophenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-N3-hydroxy-N1,N1-dimethyl-, (CA INDEX NAME)

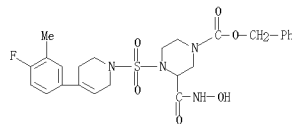


RN 210916-75-9 CAPLUS

L9 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

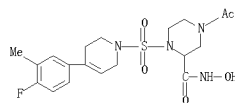
RN 210916-62-4 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[[4-(4-fluoro-3-methylphenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, phenylmethyl ester (CA INDEX NAME)



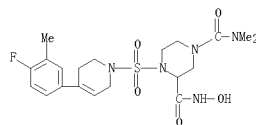
RN 210916-63-5 CAPLUS

CN 2-Piperazinecarboxamide, 4-acetyl-1-[[4-(4-fluoro-3-methylphenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-N-hydroxy- (CA INDEX NAME)



RN 210916-64-6 CAPLUS

CN 1,3-Piperazinedicarboxamide, 4-[[4-(4-fluoro-3-methylphenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-N3-hydroxy-N1,N1-dimethyl-, (CA INDEX NAME)



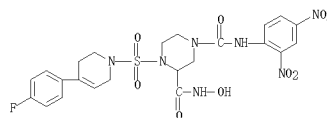
RN 210916-65-7 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[[4-(4-fluoro-3-methylphenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



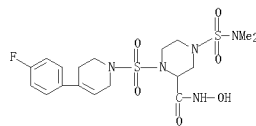
L9 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

CN 1,3-Piperazinedicarboxamide, N1-(2,4-dinitrophenyl)-4-[[4-(4-fluorophenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-N3-hydroxy- (CA INDEX NAME)



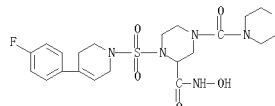
RN 210916-77-1 CAPLUS

CN 2-Piperazinecarboxamide, 4-[[4-(dimethylamino)sulfonyl]-1-[[4-(4-fluorophenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-N-hydroxy- (CA INDEX NAME)



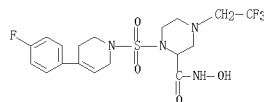
RN 210916-78-2 CAPLUS

CN 2-Piperazinecarboxamide, 1-[[4-(4-fluorophenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-N-hydroxy-4-(4-morpholinylcarbonyl)- (CA INDEX NAME)



RN 210916-79-3 CAPLUS

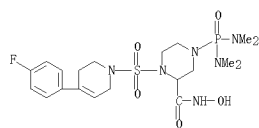
CN 2-Piperazinecarboxamide, 1-[[4-(4-fluorophenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-N-hydroxy-4-(2,2,2-trifluoroethyl)- (CA INDEX NAME)



RN 210916-80-6 CAPLUS

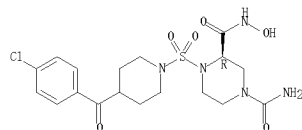
CN 2-Piperazinecarboxamide, 4-bis(dimethylamino)phosphinyl-1-[[4-(4-fluorophenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-N-hydroxy- (CA INDEX NAME)

L9 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



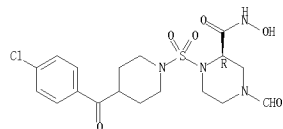
RN 210917-17-2 CAPLUS
CN 1,3-Piperazinecarboxamide, 4-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-N-hydroxy-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 210917-19-4 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorobenzoyl)-1-piperidinyl]sulfonyl]-4-formyl-N-hydroxy-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.

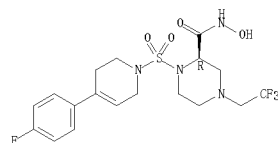


RN 210917-20-7 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-fluorophenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-N-hydroxy-4-(2,2,2-trifluoroethyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.

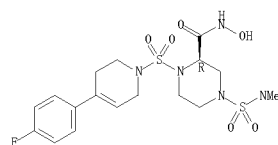
L9 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

L9 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



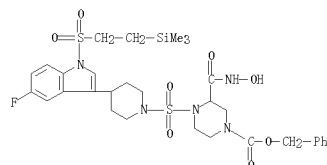
RN 210917-21-8 CAPLUS
CN 2-Piperazinecarboxamide, 4-[(dimethylamino)sulfonyl]-1-[[4-(4-fluorophenyl)-3,6-dihydro-1(2H)-pyridinyl]sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



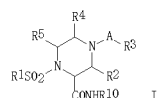
IT 210917-47-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of N-sulfamoylpiperidine-2-hydroxamic acids and analogs as metalloproteinase inhibitors)

RN 210917-47-8 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[4-(5-fluoro-1-[[2-(trimethylsilyl)ethyl]sulfonyl]-1H-indol-3-yl]-1-piperidinyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, phenylmethyl ester (CA INDEX NAME)



L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1998:424232 CAPLUS
DN 129:96510
OREF 129:19703a,19706a
TI Preparation of 2-piperazinecarboxamides as inhibitors of MMP or TNF
IN Neya, Masahiro; Yamazaki, Hitoshi; Kayakiri, Natsuko; Sato, Kentaro; Oku, Teruo
PA Fujisawa Pharmaceutical Co., Ltd., Japan
SO FCI Int. Appl., 199 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE
PI WO 9827069 A1 19980625 WO 1997-IP4613 19971215
W: AU, CA, CN, HU, IL, JP, KR, MX, US, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE
ZA 9711284 A 19980625 ZA 1997-11284 19971215
CA 2276478 A1 19980625 CA 1997-2276478 19971215
AU 9854122 A 19980715 AU 1998-54122 19971215
EP 948489 A1 19991013 EP 1997-947944 19971215
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI
JP 2001506257 T 20010615 JP 1998-527536 19971215
KR 2000067596 A 20000925 KR 1999-705374 19990615
US 6335324 B1 20011225 US 1999-519025 19990726
US 20020128270 A1 20020912 US 2001-982869 20011022
US 6489324 B2 20021203
US 20030060473 A1 20030327 US 2002-262841 20021003
PRAI AU 1996-4249 A 19961217
AU 1997-7156 A 19970603
AU 1997-8568 A 19970814
WO 1997-IP4613 W 19971215
US 1999-519928 A3 19990726
US 2001-982869 A3 20011022
OS MARPAT 129:96510
GI



AB The title compds. [I: A = SO2, C(O); R1 = (un)substituted aryl, heterocyclic, lower alkyl, lower alkenyl; R2 = H, (un)substituted lower alkyl, aryl, heterocyclic; R3 = (un)substituted lower alkyl, lower alkoxy, aryloxy, etc.; R4 = H, (un)substituted lower alkyl, aryl, heterocyclic; R5 = H, (un)substituted lower alkyl, aryl, heterocyclic; R10 = OH, protected OH] and their pharmaceutically acceptable salts, useful for prophylactic and therapeutic treatment of MMP- or TNF-mediated diseases, were prepared. Thus, treatment of a solution of (2R)-1-(4-nitrobenzenesulfonyl)-4-methanesulfonylpiperazine-2-[N-(2-tetrahydropyran-2-yl)carboxamide] in MeOH with 10% HCl-MeOH afforded (2R)-1 [R1 = 4-ONC6H4SO2; R2 = R4 = R5 = H; R3 = Me; R10 = OH] which showed 95.3% inhibition of collagenase activity at 1x10⁻⁶ M.
IT 209589-35-5P 209589-39-9P 209589-54-8P

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

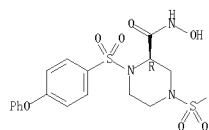
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RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 2-piperazinecarboxamides as inhibitors of MMP or TNF)

RN 209589-35-5 CAPLUS

CN 2-Piperazinecarboxamide, N-hydroxy-4-(methylsulfonyl)-1-[(4-phenoxyphenyl)sulfonyl]-, (2R)- (CA INDEX NAME)

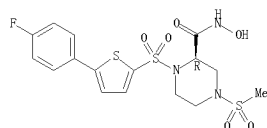
Absolute stereochemistry.



L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

CN 2-Piperazinecarboxamide, 1-[[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-(methylsulfonyl)-, (2R)- (CA INDEX NAME)

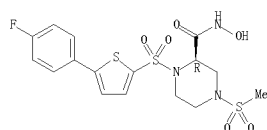
Absolute stereochemistry.



RN 209589-60-6 CAPLUS

CN 2-Piperazinecarboxamide, 1-[[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-(methylsulfonyl)-, sodium salt (1:1), (2R)- (CA INDEX NAME)

Absolute stereochemistry.

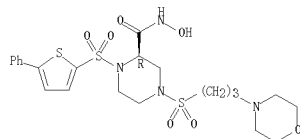


● Na

RN 209590-15-8 CAPLUS

CN 2-Piperazinecarboxamide, N-hydroxy-4-[[[3-(4-morpholinyl)propyl]sulfonyl]-1-[(5-phenyl-2-thienyl)sulfonyl]-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

Absolute stereochemistry.



● HCl

RN 209590-16-9 CAPLUS

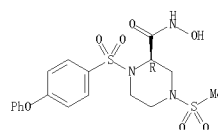
CN 2-Piperazinecarboxamide, N-hydroxy-1-[(5-phenyl-2-thienyl)sulfonyl]-4-[[[2-(4-pyridinyl)ethyl]sulfonyl]-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

RN 209589-39-9 CAPLUS

CN 2-Piperazinecarboxamide, N-hydroxy-4-(methylsulfonyl)-1-[(4-phenoxyphenyl)sulfonyl]-, sodium salt (1:1), (2R)- (CA INDEX NAME)

Absolute stereochemistry.

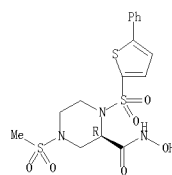


● Na

RN 209589-54-8 CAPLUS

CN 2-Piperazinecarboxamide, N-hydroxy-4-(methylsulfonyl)-1-[(5-phenyl-2-thienyl)sulfonyl]-, (2R)- (CA INDEX NAME)

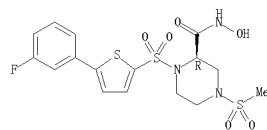
Absolute stereochemistry.



RN 209589-56-0 CAPLUS

CN 2-Piperazinecarboxamide, 1-[[[5-(3-fluorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-(methylsulfonyl)-, (2R)- (CA INDEX NAME)

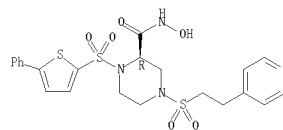
Absolute stereochemistry.



RN 209589-58-2 CAPLUS

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

Absolute stereochemistry.

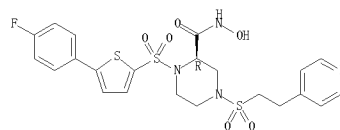


● HCl

RN 209590-17-0 CAPLUS

CN 2-Piperazinecarboxamide, 1-[[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-[[[2-(4-pyridinyl)ethyl]sulfonyl]-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

Absolute stereochemistry.

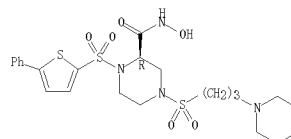


● HCl

RN 209590-18-1 CAPLUS

CN 2-Piperazinecarboxamide, N-hydroxy-1-[(5-phenyl-2-thienyl)sulfonyl]-4-[[[3-(1-piperidinyl)propyl]sulfonyl]-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

Absolute stereochemistry.



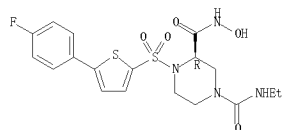
● HCl

RN 209590-19-2 CAPLUS

CN 1,3-Piperazinedicarboxamide, N1-ethyl-4-[[[5-(4-fluorophenyl)-2-

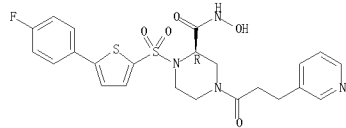
L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 CN thienyl)sulfonyl]-N3-hydroxy-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 209590-20-5 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-[1-oxo-3-(3-pyridinyl)propyl]-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

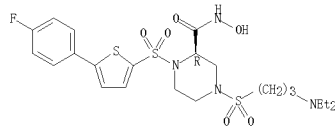
Absolute stereochemistry.



● HCl

RN 209590-21-6 CAPLUS
 CN 2-Piperazinecarboxamide, 4-[[3-(diethylamino)propyl]sulfonyl]-1-[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

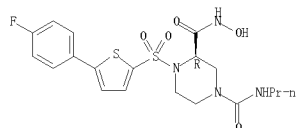
Absolute stereochemistry.



● HCl

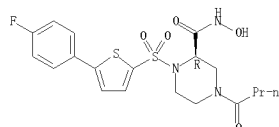
L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 CN 1,3-Piperazinedicarboxamide, 4-[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N3-hydroxy-N1-propyl-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



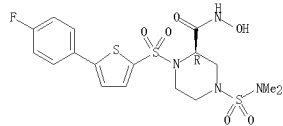
RN 209590-26-1 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-(1-oxobutyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 209590-27-2 CAPLUS
 CN 2-Piperazinecarboxamide, 4-[[dimethylamino)sulfonyl]-1-[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.

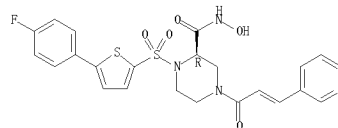


RN 209590-28-3 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[5-(4-chlorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-(methylsulfonyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 RN 209590-22-7 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-[1-oxo-3-(3-pyridinyl)-2-propen-1-yl]-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

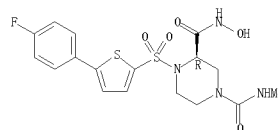
Absolute stereochemistry.
 Double bond geometry unknown.



● HCl

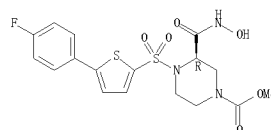
RN 209590-23-8 CAPLUS
 CN 1,3-Piperazinedicarboxamide, 4-[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N3-hydroxy-N1-methyl-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



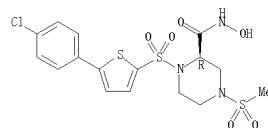
RN 209590-24-9 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, methyl ester, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



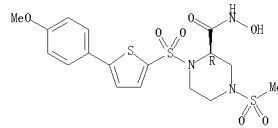
RN 209590-25-0 CAPLUS

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



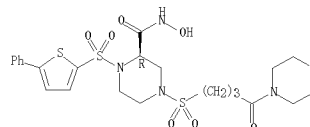
RN 209590-29-4 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-1-[[5-(4-methoxyphenyl)-2-thienyl]sulfonyl]-4-(methylsulfonyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 209590-30-7 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-4-[[4-(4-morpholinyl)-4-oxobutyl]sulfonyl]-1-[[5-phenyl-2-thienyl]sulfonyl]-, (2R)- (CA INDEX NAME)

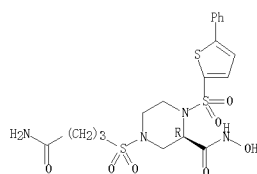
Absolute stereochemistry.



RN 209590-31-8 CAPLUS
 CN 2-Piperazinecarboxamide, 4-[[4-amino-4-oxobutyl]sulfonyl]-N-hydroxy-1-[[5-phenyl-2-thienyl]sulfonyl]-, (2R)- (CA INDEX NAME)

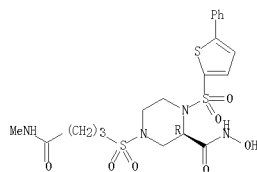
Absolute stereochemistry.

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



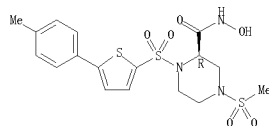
RN 209590-32-9 CAPLUS
CN 2-Piperazinecarboxamide, N-hydroxy-1-[[4-(methylamino)-4-oxobutyl]sulfonyl]-1-[(5-phenyl-2-thienyl)sulfonyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 209590-33-0 CAPLUS
CN 2-Piperazinecarboxamide, N-hydroxy-1-[[5-(4-methylphenyl)-2-thienyl]sulfonyl]-4-(methylsulfonyl)-, (2R)- (CA INDEX NAME)

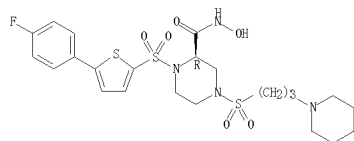
Absolute stereochemistry.



RN 209590-34-1 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-(propylsulfonyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.

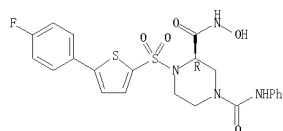
L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



● HCl

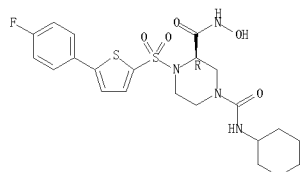
RN 209590-38-5 CAPLUS
CN 1,3-Piperazinedicarboxamide, 4-[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N3-hydroxy-N1-phenyl-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 209590-39-6 CAPLUS
CN 1,3-Piperazinedicarboxamide, N1-cyclohexyl-4-[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N3-hydroxy-, (3R)- (CA INDEX NAME)

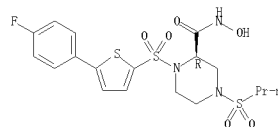
Absolute stereochemistry.



RN 209590-40-9 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, ethyl ester, (3R)- (CA INDEX NAME)

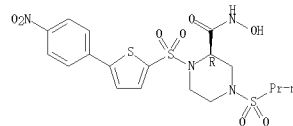
Absolute stereochemistry.

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



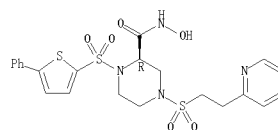
RN 209590-35-2 CAPLUS
CN 2-Piperazinecarboxamide, N-hydroxy-1-[[5-(4-nitrophenyl)-2-thienyl]sulfonyl]-4-(propylsulfonyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 209590-36-3 CAPLUS
CN 2-Piperazinecarboxamide, N-hydroxy-1-[[5-(4-nitrophenyl)-2-thienyl]sulfonyl]-4-[[2-(2-pyridinyl)ethyl]sulfonyl]-, (2R)- (CA INDEX NAME)

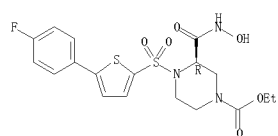
Absolute stereochemistry.



RN 209590-37-4 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-[[3-(1-piperidinyl)propyl]sulfonyl]-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

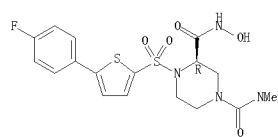
Absolute stereochemistry.

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



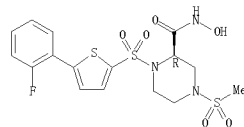
RN 209590-41-0 CAPLUS
CN 1,3-Piperazinedicarboxamide, 4-[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N3-hydroxy-N1,N1-dimethyl-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 209590-42-1 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[5-(2-fluorophenyl)-2-thienyl]sulfonyl]-N3-hydroxy-4-(methylsulfonyl)-, (2R)- (CA INDEX NAME)

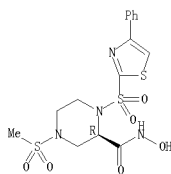
Absolute stereochemistry.



RN 209590-43-2 CAPLUS
CN 2-Piperazinecarboxamide, N-hydroxy-4-(methylsulfonyl)-1-[(4-phenyl-2-thiazolyl)sulfonyl]-, (2R)- (CA INDEX NAME)

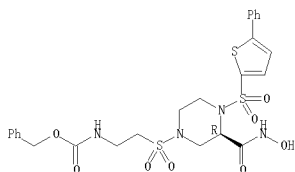
Absolute stereochemistry.

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 209590-44-3 CAPLUS
 CN Carbamic acid, [2-[[[(3R)-3-[(hydroxyamino)carbonyl]-4-[(5-phenyl-2-thienyl)sulfonyl]-1-piperazinyl]sulfonyl]ethyl]-, phenylmethyl ester (9CI)
 (CA INDEX NAME)

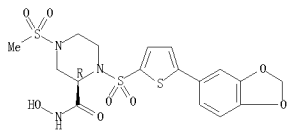
Absolute stereochemistry.



RN 209590-45-4 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-1-[(5-phenyl-2-thienyl)sulfonyl]-4-[[[3-(1H-1,2,4-triazol-5-ylthio)propyl]sulfonyl]-, hydrochloride (1:1), (2R)-
 (CA INDEX NAME)

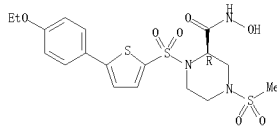
Absolute stereochemistry.

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



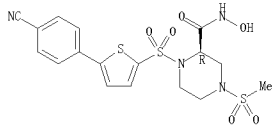
RN 209590-49-8 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[5-(4-ethoxyphenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-(methylsulfonyl)-, (2R)-
 (CA INDEX NAME)

Absolute stereochemistry.



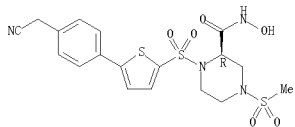
RN 209590-50-1 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[5-(4-cyanophenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-(methylsulfonyl)-, (2R)-
 (CA INDEX NAME)

Absolute stereochemistry.



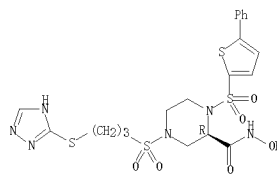
RN 209590-51-2 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[5-(4-(cyanomethyl)phenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-(methylsulfonyl)-, (2R)-
 (CA INDEX NAME)

Absolute stereochemistry.



RN 209590-52-3 CAPLUS

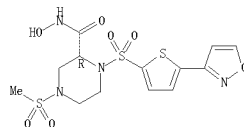
L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



● HC1

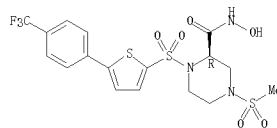
RN 209590-46-5 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-1-[[[5-(3-isoxazolyl)-2-thienyl]sulfonyl]-4-(methylsulfonyl)-, (2R)-
 (CA INDEX NAME)

Absolute stereochemistry.



RN 209590-47-6 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-4-(methylsulfonyl)-1-[[[4-(trifluoromethyl)phenyl]-2-thienyl]sulfonyl]-, (2R)-
 (CA INDEX NAME)

Absolute stereochemistry.



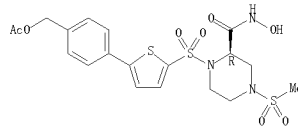
RN 209590-48-7 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[5-(1,3-benzodioxol-5-yl)-2-thienyl]sulfonyl]-N-hydroxy-4-(methylsulfonyl)-, (2R)-
 (CA INDEX NAME)

Absolute stereochemistry.

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

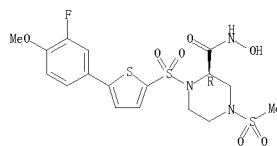
CN 2-Piperazinecarboxamide, 1-[[[5-[4-(acetoxy)methyl]phenyl]-2-thienyl]sulfonyl]-N-hydroxy-4-(methylsulfonyl)-, (2R)-
 (CA INDEX NAME)

Absolute stereochemistry.



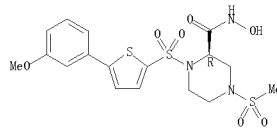
RN 209590-53-4 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[5-(3-fluoro-4-methoxyphenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-(methylsulfonyl)-, (2R)-
 (CA INDEX NAME)

Absolute stereochemistry.



RN 209590-54-5 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-1-[[[5-(3-methoxyphenyl)-2-thienyl]sulfonyl]-4-(methylsulfonyl)-, (2R)-
 (CA INDEX NAME)

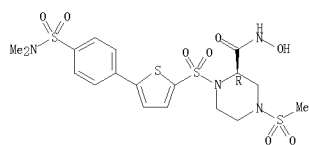
Absolute stereochemistry.



RN 209590-55-6 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[5-[4-(dimethylamino)sulfonyl]phenyl]-2-thienyl]sulfonyl]-N-hydroxy-4-(methylsulfonyl)-, (2R)-
 (CA INDEX NAME)

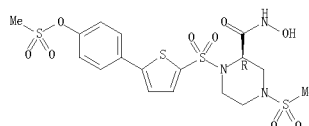
Absolute stereochemistry.

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



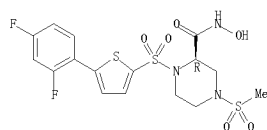
RN 209590-56-7 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-4-(methylsulfonyl)-1-[[5-[4-(methylsulfonyloxy)phenyl]-2-thienyl]sulfonyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 209590-57-8 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[5-(2,4-difluorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-(methylsulfonyl)-, (2R)- (CA INDEX NAME)

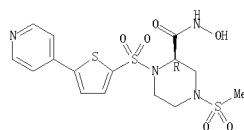
Absolute stereochemistry.



RN 209590-58-9 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[5-[4-(cyanomethoxy)phenyl]-2-thienyl]sulfonyl]-N-hydroxy-4-(methylsulfonyl)-, (2R)- (CA INDEX NAME)

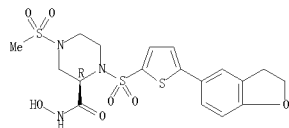
Absolute stereochemistry.

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



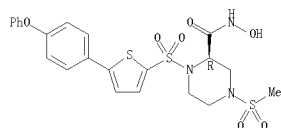
RN 209590-62-5 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-4-(methylsulfonyl)-1-[[5-(5-phenyl-1,3,4-oxadiazol-2-yl)-2-thienyl]sulfonyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



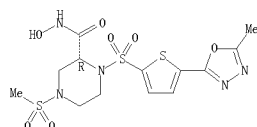
RN 209590-63-6 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-4-(methylsulfonyl)-1-[[5-(4-phenoxyphenyl)-2-thienyl]sulfonyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



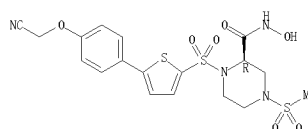
RN 209590-64-7 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-1-[[5-(5-methyl-1,3,4-oxadiazol-2-yl)-2-thienyl]sulfonyl]-4-(methylsulfonyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



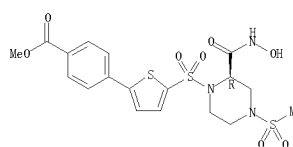
RN 209590-65-8 CAPLUS

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



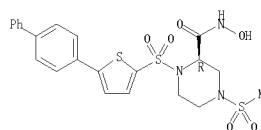
RN 209590-59-0 CAPLUS
 CN Benzoic acid, 4-[5-[[2R]-2-[(hydroxyamino)carbonyl]-4-(methylsulfonyl)-1-piperazinyl]sulfonyl]-2-thienyl]-, methyl ester (CA INDEX NAME)

Absolute stereochemistry.



RN 209590-60-3 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[5-[1,1'-biphenyl]-4-yl]-2-thienyl]sulfonyl]-N-hydroxy-4-(methylsulfonyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



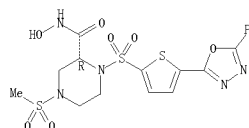
RN 209590-61-4 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-4-(methylsulfonyl)-1-[[5-(4-pyridinyl)-2-thienyl]sulfonyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

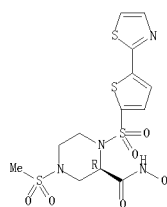
CN 2-Piperazinecarboxamide, N-hydroxy-4-(methylsulfonyl)-1-[[5-(5-phenyl-1,3,4-oxadiazol-2-yl)-2-thienyl]sulfonyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



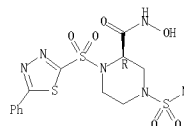
RN 209590-66-9 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-4-(methylsulfonyl)-1-[[5-(2-thiazolyl)-2-thienyl]sulfonyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 209590-67-0 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-4-(methylsulfonyl)-1-[[5-(phenyl-1,3,4-thiadiazol-2-yl)thienyl]sulfonyl]-, (2R)- (CA INDEX NAME)

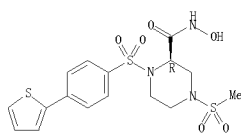
Absolute stereochemistry.



RN 209590-68-1 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-4-(methylsulfonyl)-1-[[4-(2-thienyl)phenyl]sulfonyl]-, (2R)- (CA INDEX NAME)

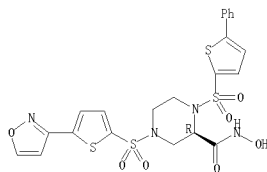
Absolute stereochemistry.

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



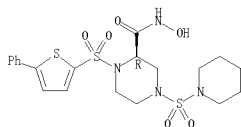
RN 209590-69-2 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-4-[[5-(3-isoxazolyl)-2-thienyl]sulfonyl]-1-[(5-phenyl-2-thienyl)sulfonyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 209590-70-5 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-1-[(5-phenyl-2-thienyl)sulfonyl]-4-(1-piperidinylsulfonyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.

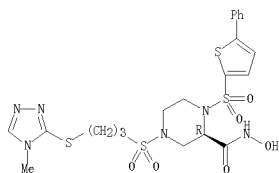


RN 209590-71-6 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-4-[(methylpropylamino)sulfonyl]-1-[(5-phenyl-2-thienyl)sulfonyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 ylthio]propyl]sulfonyl]-1-[(5-phenyl-2-thienyl)sulfonyl]-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

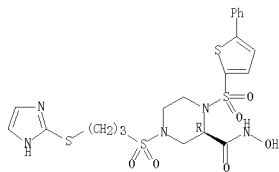
Absolute stereochemistry.



● HCl

RN 209590-75-0 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-4-[[3-(1H-imidazol-2-ylthio)propyl]sulfonyl]-1-[(5-phenyl-2-thienyl)sulfonyl]-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

Absolute stereochemistry.

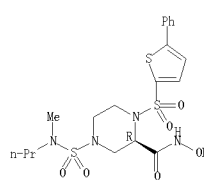


● HCl

RN 209590-76-1 CAPLUS
 CN 1-Piperazinecarboxylic acid, 3-[(hydroxyamino)carbonyl]-4-[(5-phenyl-2-thienyl)sulfonyl]-, methyl ester, (3R)- (CA INDEX NAME)

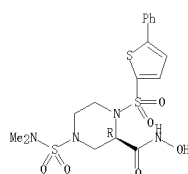
Absolute stereochemistry.

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



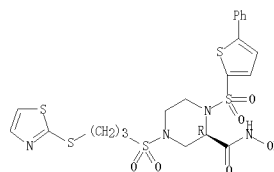
RN 209590-72-7 CAPLUS
 CN 2-Piperazinecarboxamide, 4-[(dimethylamino)sulfonyl]-N-hydroxy-1-[(5-phenyl-2-thienyl)sulfonyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



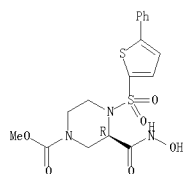
RN 209590-73-8 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-1-[(5-phenyl-2-thienyl)sulfonyl]-4-[[3-(2-thiazolylthio)propyl]sulfonyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



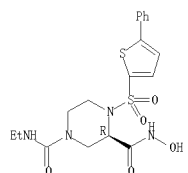
RN 209590-74-9 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-4-[[3-[(4-methyl-4H-1,2,4-triazol-3-

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



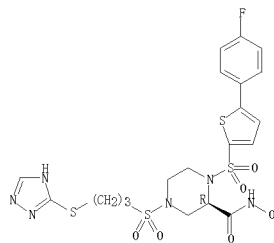
RN 209590-77-2 CAPLUS
 CN 1,3-Piperazinedicarboxamide, N1-ethyl-N3-hydroxy-4-[(5-phenyl-2-thienyl)sulfonyl]-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 209590-78-3 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-[[3-(1H-1,2,4-triazol-5-ylthio)propyl]sulfonyl]-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

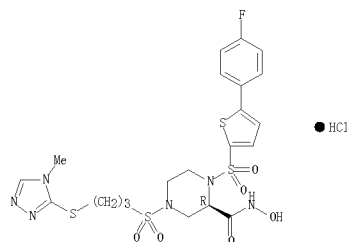
Absolute stereochemistry.



● HCl

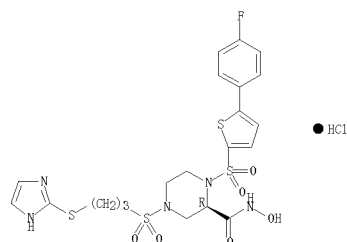
L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 RN 209590-79-4 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-[[3-[(4-methyl-4H-1,2,4-triazol-3-yl)thio]propyl]sulfonyl]-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 209590-80-7 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-[[3-(1H-imidazol-2-ylthio)propyl]sulfonyl]-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

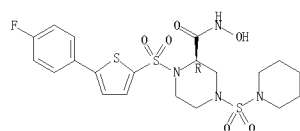
Absolute stereochemistry.



RN 209590-81-8 CAPLUS
 CN 2-Piperazinecarboxamide, 4-[[[3-(1H-benzimidazol-2-ylthio)propyl]sulfonyl]-1-[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

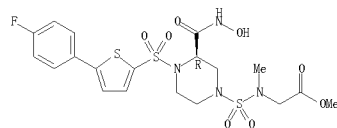
Absolute stereochemistry.

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 Absolute stereochemistry.



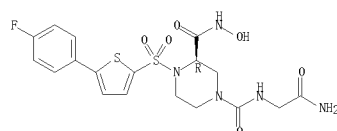
RN 209590-85-2 CAPLUS
 CN Glycine, N-[[[3R]-4-[[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-3-(hydroxyamino)carbonyl]-1-piperazinyl]sulfonyl]-N-methyl-, methyl ester (CA INDEX NAME)

Absolute stereochemistry.



RN 209590-86-3 CAPLUS
 CN 1,3-Piperazinedicarboxamide, N1-(2-amino-2-oxoethyl)-4-[[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N3-hydroxy-, (3R)- (CA INDEX NAME)

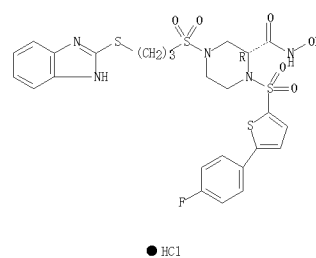
Absolute stereochemistry.



RN 209590-87-4 CAPLUS
 CN 1,3-Piperazinedicarboxamide, 4-[[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N3-hydroxy-N1-(2-hydroxyethyl)-, (3R)- (CA INDEX NAME)

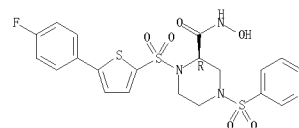
Absolute stereochemistry.

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



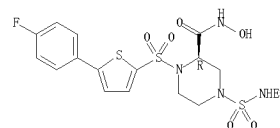
RN 209590-82-9 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-(3-pyridinylsulfonyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



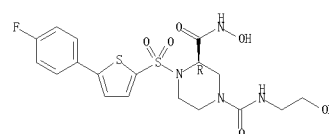
RN 209590-83-0 CAPLUS
 CN 2-Piperazinecarboxamide, 4-[(ethylamino)sulfonyl]-1-[[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



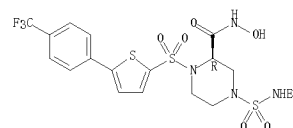
RN 209590-84-1 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-(1-piperidinylsulfonyl)-, (2R)- (CA INDEX NAME)

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



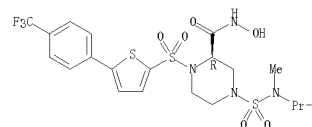
RN 209590-88-5 CAPLUS
 CN 2-Piperazinecarboxamide, 4-[(ethylamino)sulfonyl]-N-hydroxy-1-[[[5-[4-(trifluoromethyl)phenyl]-2-thienyl]sulfonyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



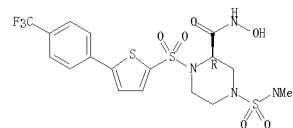
RN 209590-89-6 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-4-[(methylpropylamino)sulfonyl]-1-[[[5-[4-(trifluoromethyl)phenyl]-2-thienyl]sulfonyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



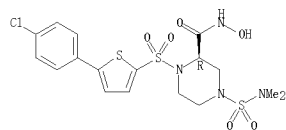
RN 209590-90-9 CAPLUS
 CN 2-Piperazinecarboxamide, 4-[[[dimethylamino)sulfonyl]-N-hydroxy-1-[[[5-[4-(trifluoromethyl)phenyl]-2-thienyl]sulfonyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



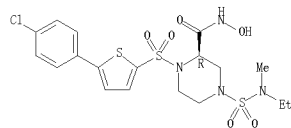
L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 RN 209590-91-0 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[5-(4-chlorophenyl)-2-thienyl]sulfonyl]-4-(dimethylamino)sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



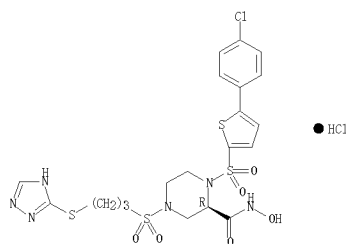
RN 209590-92-1 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[5-(4-chlorophenyl)-2-thienyl]sulfonyl]-4-(ethylmethylamino)sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.

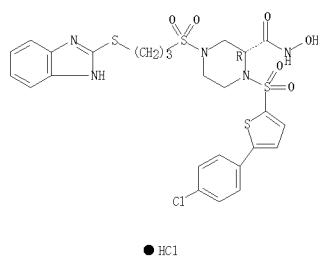


RN 209590-93-2 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[5-(4-chlorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-[[3-(1H-1,2,4-triazol-5-ylthio)propyl]sulfonyl]-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

Absolute stereochemistry.

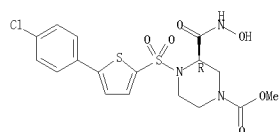


L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 Absolute stereochemistry.



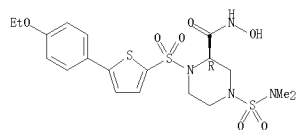
RN 209590-97-6 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[[[5-(4-chlorophenyl)-2-thienyl]sulfonyl]-3-(1H-imidazol-2-ylthio)propyl]sulfonyl]-, methyl ester, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 209590-98-7 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[5-(4-ethoxyphenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-[[3-(1H-1,2,4-triazol-5-ylthio)propyl]sulfonyl]-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

Absolute stereochemistry.



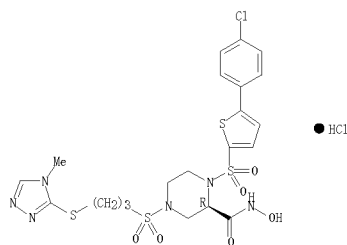
RN 209590-99-8 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[5-(4-ethoxyphenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-[[3-(1H-1,2,4-triazol-5-ylthio)propyl]sulfonyl]-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

Absolute stereochemistry.

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

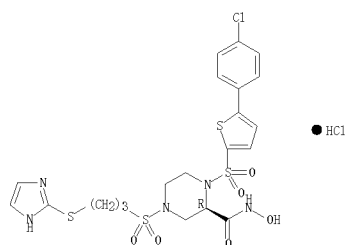
RN 209590-94-3 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[5-(4-chlorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-[[3-(4-methyl-4H-1,2,4-triazol-3-ylthio)propyl]sulfonyl]-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

Absolute stereochemistry.



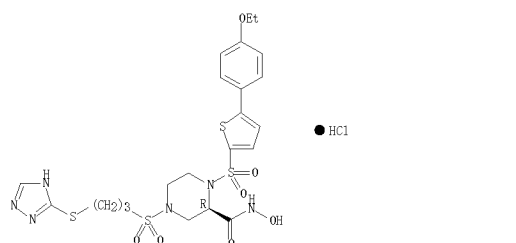
RN 209590-95-4 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[5-(4-chlorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-[[3-(1H-imidazol-2-ylthio)propyl]sulfonyl]-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

Absolute stereochemistry.



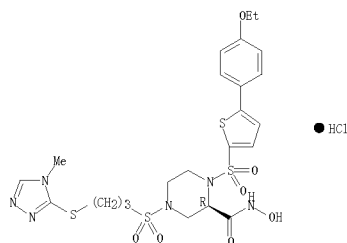
RN 209590-96-5 CAPLUS
 CN 2-Piperazinecarboxamide, 4-[[[3-(1H-benzimidazol-2-ylthio)propyl]sulfonyl]-1-[[[5-(4-chlorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 209591-00-4 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[5-(4-ethoxyphenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-[[3-(4-methyl-4H-1,2,4-triazol-3-ylthio)propyl]sulfonyl]-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

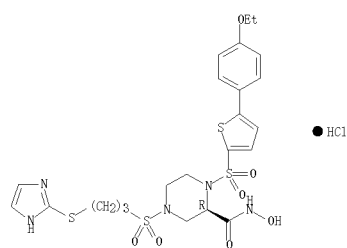
Absolute stereochemistry.



RN 209591-01-5 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[[5-(4-ethoxyphenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-[[3-(1H-imidazol-2-ylthio)propyl]sulfonyl]-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

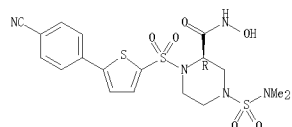
Absolute stereochemistry.

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



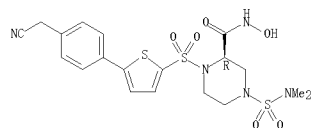
RN 209591-02-6 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[[5-(4-cyanophenyl)-2-thienyl]sulfonyl]-4-[(dimethylamino)sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 209591-03-7 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[[5-[4-(cyanomethyl)phenyl]-2-thienyl]sulfonyl]-4-[(dimethylamino)sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

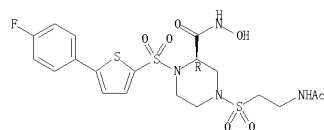
Absolute stereochemistry.



RN 209591-04-8 CAPLUS
CN 2-Piperazinecarboxamide, 4-[[[5-(3-fluoro-4-methoxyphenyl)-2-thienyl]sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

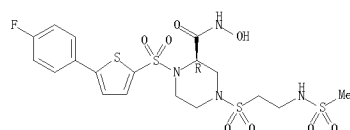
Absolute stereochemistry.

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



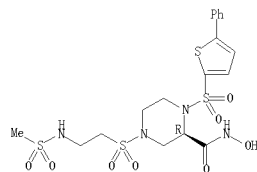
RN 209591-10-6 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-[[2-[(methylsulfonyl)amino]ethyl]sulfonyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 209591-11-7 CAPLUS
CN 2-Piperazinecarboxamide, N-hydroxy-4-[[2-[(methylsulfonyl)amino]ethyl]sulfonyl]-1-[[5-(4-phenyl-2-thienyl)sulfonyl]-, (2R)- (CA INDEX NAME)

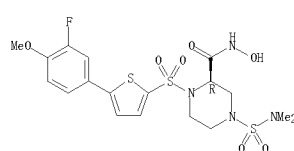
Absolute stereochemistry.



RN 209591-12-8 CAPLUS
CN 2-Piperazinecarboxamide, N-hydroxy-4-[[2-[(methylsulfonyl)amino]ethyl]sulfonyl]-1-[[5-[4-(trifluoromethyl)phenyl]-2-thienyl]sulfonyl]-, (2R)- (CA INDEX NAME)

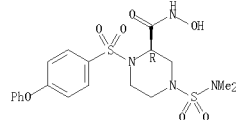
Absolute stereochemistry.

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



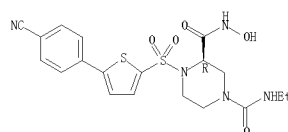
RN 209591-06-0 CAPLUS
CN 2-Piperazinecarboxamide, 4-[[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-1-[[4-(phenoxyphenyl)sulfonyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 209591-07-1 CAPLUS
CN 1,3-Piperazinedicarboxamide, 4-[[[5-(4-cyanophenyl)-2-thienyl]sulfonyl]-N-ethyl-N-hydroxy-, (3R)- (CA INDEX NAME)

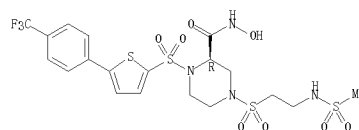
Absolute stereochemistry.



RN 209591-09-3 CAPLUS
CN 2-Piperazinecarboxamide, 4-[[[2-(acetamino)ethyl]sulfonyl]-1-[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

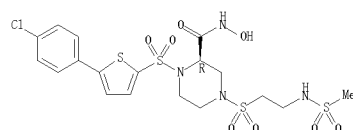
Absolute stereochemistry.

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



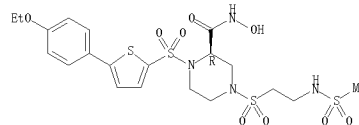
RN 209591-13-9 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[[5-(4-chlorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-[[2-[(methylsulfonyl)amino]ethyl]sulfonyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 209591-14-0 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[[5-(4-ethoxyphenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-[[2-[(methylsulfonyl)amino]ethyl]sulfonyl]-, (2R)- (CA INDEX NAME)

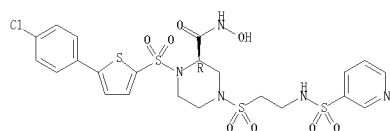
Absolute stereochemistry.



RN 209591-15-1 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[[5-(4-chlorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-[[2-[(3-pyridinylsulfonyl)amino]ethyl]sulfonyl]-, (2R)- (CA INDEX NAME)

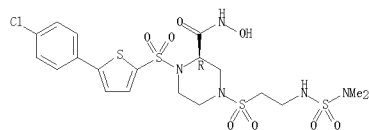
Absolute stereochemistry.

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



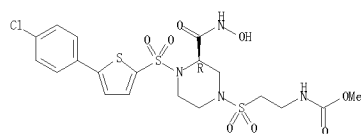
RN 209591-16-2 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[[5-(4-chlorophenyl)-2-thienyl]sulfonyl]-4-[[2-[(dimethylamino)sulfonyl]amino]ethyl]sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 209591-17-3 CAPLUS
CN Carbamic acid, [2-[[[(3R)-4-[[[5-(4-chlorophenyl)-2-thienyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-1-piperazinyl]sulfonyl]ethyl]-, methyl ester (9CI) (CA INDEX NAME)

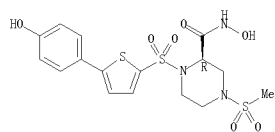
Absolute stereochemistry.



RN 209591-18-4 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-[[2-[(3-pyridinylcarbonyl)amino]ethyl]sulfonyl]-, (2R)- (CA INDEX NAME)

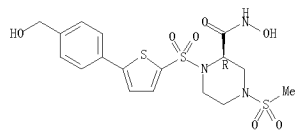
Absolute stereochemistry.

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



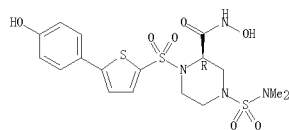
RN 209591-94-6 CAPLUS
CN 2-Piperazinecarboxamide, N-hydroxy-1-[[[5-[4-(hydroxymethyl)phenyl]-2-thienyl]sulfonyl]-4-(methylsulfonyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



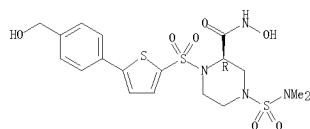
RN 209591-95-7 CAPLUS
CN 2-Piperazinecarboxamide, 4-[[[2-[(dimethylamino)sulfonyl]-N-hydroxy-1-[[[5-(4-hydroxyphenyl)-2-thienyl]sulfonyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



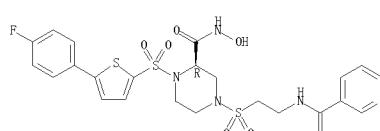
RN 209591-96-8 CAPLUS
CN 2-Piperazinecarboxamide, 4-[[[2-[(dimethylamino)sulfonyl]-N-hydroxy-1-[[[5-(4-hydroxymethyl)phenyl]-2-thienyl]sulfonyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



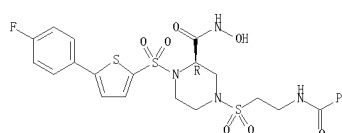
RN 209591-97-9 CAPLUS

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



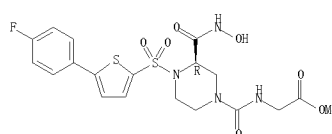
RN 209591-19-5 CAPLUS
CN 2-Piperazinecarboxamide, 4-[[[2-(benzoylamino)ethyl]sulfonyl]-1-[[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 209591-21-9 CAPLUS
CN Glycine, N-[[[(3R)-4-[[[5-(4-fluorophenyl)-2-thienyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-1-piperazinyl]sulfonyl]-, methyl ester (CA INDEX NAME)

Absolute stereochemistry.



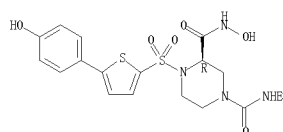
RN 209591-93-5 CAPLUS
CN 2-Piperazinecarboxamide, N-hydroxy-1-[[[5-(4-hydroxyphenyl)-2-thienyl]sulfonyl]-4-(methylsulfonyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

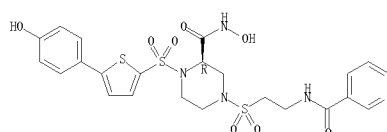
CN 1,3-Piperazinedicarboxamide, N1-ethyl-N3-hydroxy-4-[[[5-(4-hydroxyphenyl)-2-thienyl]sulfonyl]-, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



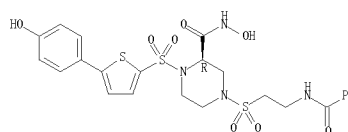
RN 209591-98-0 CAPLUS
CN 2-Piperazinecarboxamide, N-hydroxy-1-[[[5-(4-hydroxyphenyl)-2-thienyl]sulfonyl]-4-[[2-[(3-pyridinylcarbonyl)amino]ethyl]sulfonyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 209591-99-1 CAPLUS
CN 2-Piperazinecarboxamide, 4-[[[2-(benzoylamino)ethyl]sulfonyl]-N-hydroxy-1-[[[5-(4-hydroxyphenyl)-2-thienyl]sulfonyl]-, (2R)- (CA INDEX NAME)

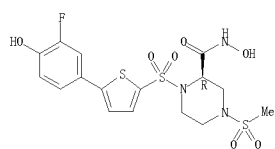
Absolute stereochemistry.



RN 209592-00-7 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[[5-(3-fluoro-4-hydroxyphenyl)-2-thienyl]sulfonyl]-N-hydroxy-4-(methylsulfonyl)-, (2R)- (CA INDEX NAME)

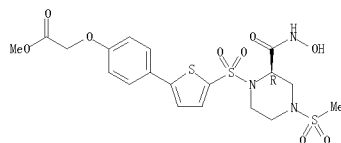
Absolute stereochemistry.

L9 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



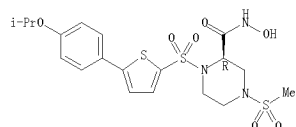
RN 209592-01-8 CAPLUS
 CN Acetic acid, 2-[4-[5-[[[(2R)-2-[(hydroxyamino)carbonyl]-4-(methylsulfonyl)-1-piperazinyl]sulfonyl]-2-thienyl]phenoxy]-, methyl ester (CA INDEX NAME)

Absolute stereochemistry.



RN 209592-03-0 CAPLUS
 CN 2-Piperazinecarboxamide, N-hydroxy-1-[[5-[4-(1-methylethoxy)phenyl]-2-thienyl]sulfonyl]-4-(methylsulfonyl)-, (2R)- (CA INDEX NAME)

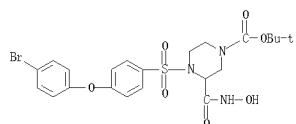
Absolute stereochemistry.



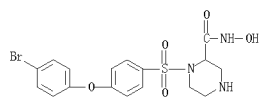
RE,CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

CN 1-Piperazinecarboxylic acid, 4-[[4-(4-bromophenoxy)phenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

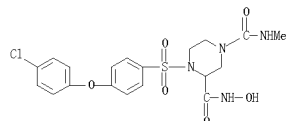


RN 192329-45-6 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-bromophenoxy)phenyl]sulfonyl]-N-hydroxy-, hydrochloride (1:1) (CA INDEX NAME)

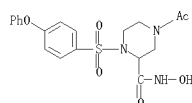


● HCl

RN 192329-46-7 CAPLUS
 CN 1,3-Piperazinedicarboxamide, 4-[[4-(4-chlorophenoxy)phenyl]sulfonyl]-N3-hydroxy-N1-methyl- (CA INDEX NAME)



RN 192329-47-8 CAPLUS
 CN 2-Piperazinecarboxamide, 4-acetyl-N-hydroxy-1-[(4-phenoxyphenyl)sulfonyl]- (CA INDEX NAME)



L9 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1998:324822 CAPLUS

DN 129:16140

OREF 129:3472h,3473a

TI Preparation of N-hydroxy-1-arylsulfonylazine-2-carboxamides and analogs as metalloproteinase inhibitors

IN Bender, Steven L.; Melnick, Michael J.

PA Agouron Pharmaceuticals, Inc., USA

SO U.S., 27 pp.

CODEN: USXXAM

DT Patent

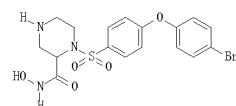
LA English

FAN,CNT 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5753653	A	19980519	US 1996-759713	19961206
US 6153757	A	20001128	US 1998-11971	19980629
US 6500948	B1	20021231	US 2000-675555	20000929
US 20030130506	A1	20030710	US 2002-298842	20021118
US 6849732	B2	20050201		
PRAI 1996-41496P	P	19961208		
US 1996-569766	B2	19961208		
WO 1996-US19328	W	19961206		
US 1996-759713	A2	19961206		
US 1998-11971	A3	19980629		
US 2000-675555	A3	20000929		
MARPAT 129:16140				

OS

GI



I

AB 4-(RO)C6H4SO2NR1CHR2CONHOH [I: R = (hetero)aryl; R1R2 = (un)substituted (CH2)4 in which ≥ 1 CH2 is replaced by O, NH, or S] were prepared

Thus, 4-tert-butoxycarbonylpiperazine-2-carboxylic acid was N-acylated by 4-BrC6H4OC6H4(SO2Cl) (preparation given) and the product amidated by H2NOSiMe2Me3 to give, after deprotection, title compound II. Data for biol. activity of I were given.

IT 192329-44-5P 192329-45-6P 192329-46-7P
 192329-47-8P 192329-49-0P 192329-50-3P
 192329-51-4P 192329-52-5P 192329-79-6P
 192329-98-9P 192330-14-6P 192330-15-7P
 192330-17-9P 192330-18-0P 192330-19-1P
 192330-20-4P 192330-21-6P 207795-08-2P
 207795-09-3P 207795-10-6P 207795-11-7P
 207795-14-0P 207795-15-1P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of N-hydroxy-1-arylsulfonylazine-2-carboxamides and analogs as metalloproteinase inhibitors)

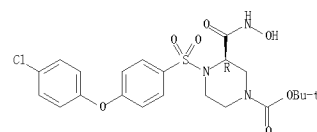
RN 192329-44-5 CAPLUS

L9 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

RN 192329-49-0 CAPLUS

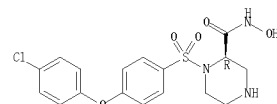
CN 1-Piperazinecarboxylic acid, 4-[[4-(4-chlorophenoxy)phenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, 1,1-dimethylethyl ester, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 192329-50-3 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorophenoxy)phenyl]sulfonyl]-N-hydroxy-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

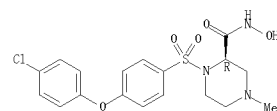
Absolute stereochemistry.



● HCl

RN 192329-51-4 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorophenoxy)phenyl]sulfonyl]-N-hydroxy-4-methyl-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

Absolute stereochemistry.

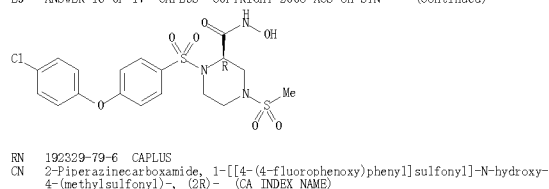


● HCl

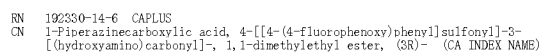
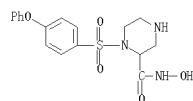
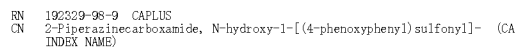
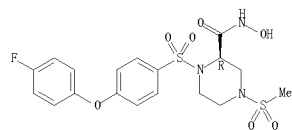
RN 192329-52-5 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorophenoxy)phenyl]sulfonyl]-N-hydroxy-4-(methylsulfonyl)-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.

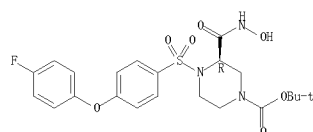
L9 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



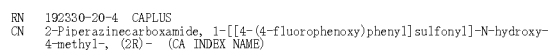
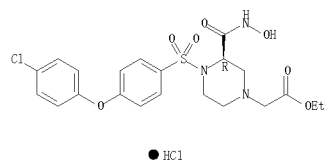
Absolute stereochemistry.



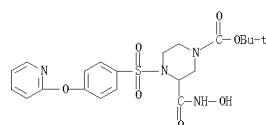
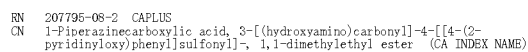
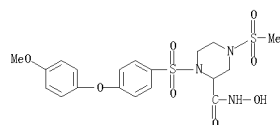
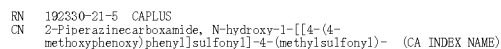
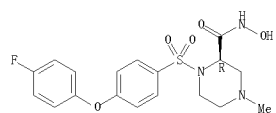
Absolute stereochemistry.



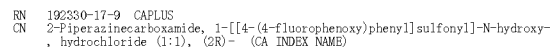
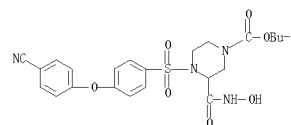
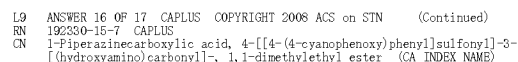
L9 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



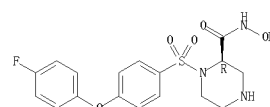
Absolute stereochemistry.



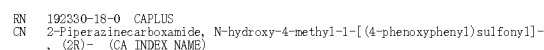
RN 207795-09-3 CAPLUS



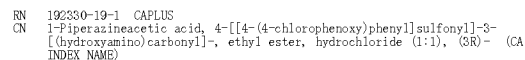
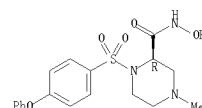
Absolute stereochemistry.



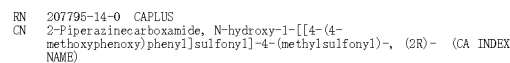
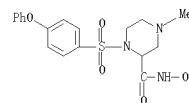
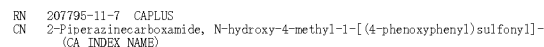
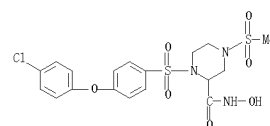
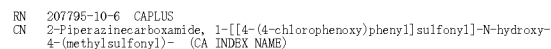
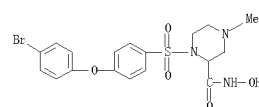
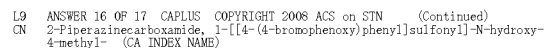
● HCl



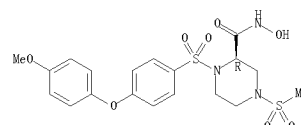
Absolute stereochemistry.



Absolute stereochemistry.



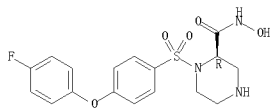
Absolute stereochemistry.



RN 207795-15-1 CAPLUS

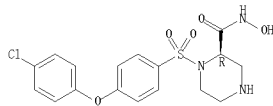
L9 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 CN 2-Piperazinecarboxamide, 1-[[4-(4-fluorophenoxy)phenyl]sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



IT 192350-23-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of N-hydroxy-1-arylsulfonylazine-2-carboxamides and analogs as metalloproteinase inhibitors)
 RN 192350-23-7 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorophenoxy)phenyl]sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1997:496833 CAPLUS
 DN 127:108945
 OREF 127:21015a, 21018a
 TI Preparation of heterocyclic metalloproteinase-inhibitor antitumor agents and antiarthritis
 IN Zook, Scott E.; Dagnino, Raymond, Jr.; Deason, Michael E.; Bender, Steven L.; Melnick, Michael J.
 FA Agouron Pharmaceuticals, Inc., USA
 SO PCT Int. Appl., 150 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9720824	A1	19970612	WO 1996-US19328	19961205
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2238306	A1	19970612	CA 1996-2238306	19961205
AU 9714091	A	19970627	AU 1997-14091	19961205
AU 725831	B2	20001019		
EP 874830	A1	19981104	EP 1996-944229	19961205
EP 874830	B1	20000312		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
CN 1207734	A	19990210	CN 1996-199683	19961205
CN 1207289	C	20050622		
BR 9611329	A	19990618	BR 1996-11329	19961205
HU 9902092	A2	19990928	HU 1999-2092	19961205
HU 9902092	A3	20001228		
NZ 325559	A	20000128	NZ 1996-325559	19961205
JP 2000052330	T	20000229	JP 1997-521405	19961205
EP 1095366	A1	20010502	EP 2000-125719	19961205
EP 1095366	B1	20041124		
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IL 134816	A	20050212	IL 1996-134816	19961205
AT 234291	T	20050315	AT 1996-944229	19961205
PT 874830	T	20050630	PT 1996-944229	19961205
ES 2196034	T3	20051201	ES 1996-944229	19961205
CZ 292942	B6	20040114	CZ 1998-1733	19961205
AP 1288	A	20040721	AP 2001-200102270	19961205
IL 138027	A	20040831	IL 1996-138027	19961205
CN 1542002	A	20041103	CN 2004-10033523	19961205
AT 283264	T	20041215	AT 2000-125719	19961205
AF 1368	A	20050421	AF 1998-1284	19961205
ES 2233275	T3	20050616	ES 2000-125719	19961205
IN 1997CA00110	A	20050311	IN 1997-CA110	19970120
TW 546236	B	20050811	TW 1997-86100726	19970123
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US 6500948	B1	20021231	US 2000-675555	20000929

L9 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 US 20030130506 A1 20030710 US 2002-29842 20021118
 US 6849732 B2 20060201
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 US 1996-41496P P 19961208
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 US 1998-11971 A3 19980629
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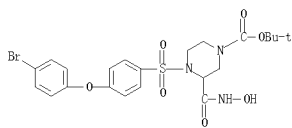
OS MARPAT 127:108945

GI For diagram(s), see printed CA Issue.

AB The title compds [I; Z = O, S; V = divalent radical which together with chiral carbon, C_h, and N and forms an (un)substituted heterocyclic ring having six ring atoms; A = (un)substituted aryl or heteroaryl], useful as metalloproteinase inhibitors for the treatment of cancer or arthritis, are prepared. Thus, 2(R)-N-hydroxy-1-[4-(4-chlorophenoxy)benzenesulfonyl]-4-(tert-butoxycarbonyl)piperazine-2-carboxamide (m.p. 94.6°), prepared from 2(R)-piperazine-2-carboxylic acid in 4 steps, demonstrated a 77.6% inhibition of lung metastases in a female mouse Lewis lung carcinoma model at 50 mg/kg (i.p.).

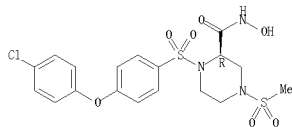
IT 192329-44-5P 192329-52-6P 192329-79-6P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (preparation of heterocyclic metalloproteinase-inhibitor antitumor agents and antiarthritis)

RN 192329-44-5 CAPLUS
 CN 1-Piperazinecarboxylic acid, 4-[[4-(4-bromophenoxy)phenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



RN 192329-52-6 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorophenoxy)phenyl]sulfonyl]-N-hydroxy-4-(methylsulfonyl)-, (2R)- (CA INDEX NAME)

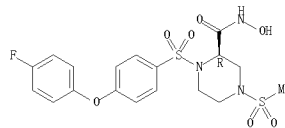
Absolute stereochemistry.



RN 192329-79-6 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-fluorophenoxy)phenyl]sulfonyl]-N-hydroxy-4-(methylsulfonyl)-, (2R)- (CA INDEX NAME)

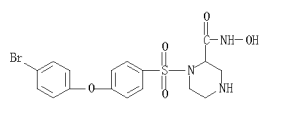
L9 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

Absolute stereochemistry.



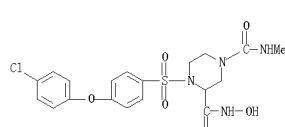
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 192329-69-4P 192329-70-7P 192329-71-8P
 192329-73-0P 192329-74-1P 192329-75-2P
 192329-76-5P 192329-98-9P 192330-14-6P
 192330-15-7P 192330-16-8P 192330-17-9P
 192330-18-0P 192330-19-1P 192330-20-4P
 192330-21-5P 192330-22-6P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of heterocyclic metalloproteinase-inhibitor antitumor agents and antiarthritis)

RN 192329-45-6 CAPLUS
 CN 2-Piperazinecarboxamide, 1-[[4-(4-bromophenoxy)phenyl]sulfonyl]-N-hydroxy-, hydrochloride (1:1) (CA INDEX NAME)



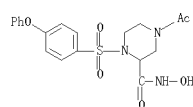
● HCl

RN 192329-46-7 CAPLUS
 CN 1,3-Piperazinedicarboxamide, 4-[[4-(4-chlorophenoxy)phenyl]sulfonyl]-N3-hydroxy-N1-methyl- (CA INDEX NAME)



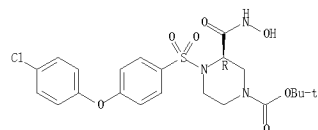
RN 192329-47-8 CAPLUS
 CN 2-Piperazinecarboxamide, 4-acetyl-N-hydroxy-1-[4-(phenoxyphenyl)sulfonyl]-

L9 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
(CA INDEX NAME)



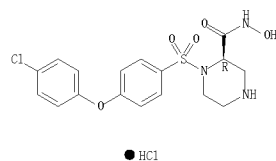
RN 192329-49-0 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[4-(4-chlorophenoxy)phenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, 1,1-dimethylethyl ester, (3R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 192329-50-3 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorophenoxy)phenyl]sulfonyl]-N-hydroxy-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

Absolute stereochemistry.

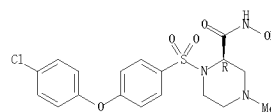


● HCl

RN 192329-51-4 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorophenoxy)phenyl]sulfonyl]-N-hydroxy-4-methyl-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

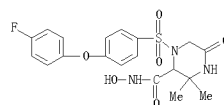
Absolute stereochemistry.

L9 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



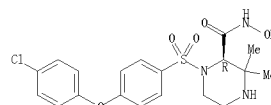
● HCl

RN 192329-60-5 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-fluorophenoxy)phenyl]sulfonyl]-N-hydroxy-3,3-dimethyl-5-oxo- (CA INDEX NAME)



RN 192329-65-0 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorophenoxy)phenyl]sulfonyl]-N-hydroxy-3,3-dimethyl-, (2R)- (CA INDEX NAME)

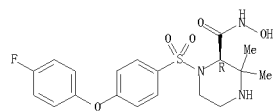
Absolute stereochemistry.



RN 192329-68-3 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-fluorophenoxy)phenyl]sulfonyl]-N-hydroxy-3,3-dimethyl-, (2R)- (CA INDEX NAME)

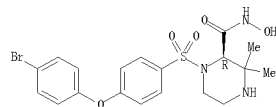
Absolute stereochemistry.

L9 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



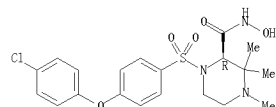
RN 192329-69-4 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-bromophenoxy)phenyl]sulfonyl]-N-hydroxy-3,3-dimethyl-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



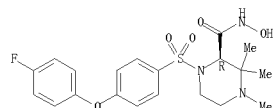
RN 192329-70-7 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorophenoxy)phenyl]sulfonyl]-N-hydroxy-3,3,4-trimethyl-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 192329-71-8 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-fluorophenoxy)phenyl]sulfonyl]-N-hydroxy-3,3,4-trimethyl-, (2R)- (CA INDEX NAME)

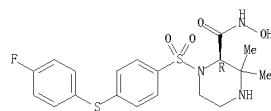
Absolute stereochemistry.



RN 192329-73-0 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-fluorophenyl)thio]phenyl]sulfonyl]-N-hydroxy-3,3-dimethyl-, (2R)- (CA INDEX NAME)

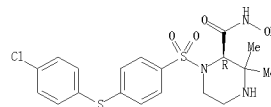
Absolute stereochemistry.

L9 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



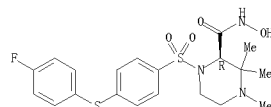
RN 192329-74-1 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorophenyl)thio]phenyl]sulfonyl]-N-hydroxy-3,3-dimethyl-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



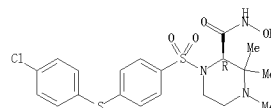
RN 192329-75-2 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-fluorophenyl)thio]phenyl]sulfonyl]-N-hydroxy-3,3,4-trimethyl-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



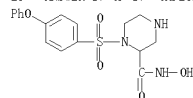
RN 192329-76-3 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorophenyl)thio]phenyl]sulfonyl]-N-hydroxy-3,3,4-trimethyl-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



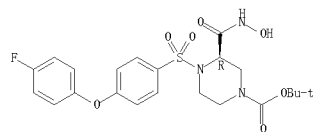
RN 192329-98-9 CAPLUS
CN 2-Piperazinecarboxamide, N-hydroxy-1-[(4-phenoxyphenyl)sulfonyl]- (CA INDEX NAME)

L9 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

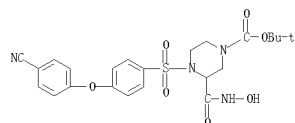


RN 192330-14-6 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[4-(4-fluorophenoxy)phenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, 1,1-dimethylethyl ester, (3R)- (CA INDEX NAME)

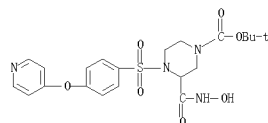
Absolute stereochemistry.



RN 192330-15-7 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[4-(4-cyanophenoxy)phenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

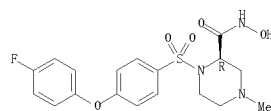


RN 192330-16-8 CAPLUS
CN 1-Piperazinecarboxylic acid, 3-[(hydroxyamino)carbonyl]-4-[[4-(4-pyridinyloxy)phenyl]sulfonyl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

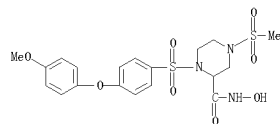


RN 192330-17-9 CAPLUS

L9 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
Absolute stereochemistry.

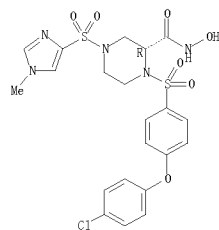


RN 192330-21-5 CAPLUS
CN 2-Piperazinecarboxamide, N-hydroxy-1-[[4-(4-methoxyphenoxy)phenyl]sulfonyl]-4-(methylsulfonyl)- (CA INDEX NAME)



RN 192330-22-6 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorophenoxy)phenyl]sulfonyl]-N-hydroxy-4-[(1-methyl-1H-imidazol-4-yl)sulfonyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.

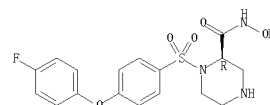


IT 192329-99-0P 192330-23-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of heterocyclic metalloproteinase-inhibitor antitumor agents and antiarthritics)

RN 192329-99-0 CAPLUS
CN 1-Piperazinecarboxylic acid, 4-[[4-(4-chlorophenoxy)phenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, phenylmethyl ester (CA INDEX NAME)

L9 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
CN 2-Piperazinecarboxamide, 1-[[4-(4-fluorophenoxy)phenyl]sulfonyl]-N-hydroxy-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

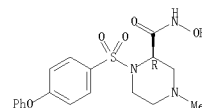
Absolute stereochemistry.



● HCl

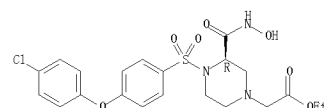
RN 192330-18-0 CAPLUS
CN 2-Piperazinecarboxamide, N-hydroxy-4-methyl-1-[[4-(4-phenoxyphenyl)sulfonyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 192330-19-1 CAPLUS
CN 1-Piperazineacetic acid, 4-[[4-(4-chlorophenoxy)phenyl]sulfonyl]-3-[(hydroxyamino)carbonyl]-, ethyl ester, hydrochloride (1:1), (3R)- (CA INDEX NAME)

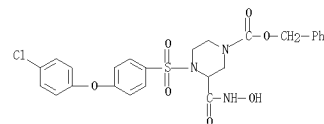
Absolute stereochemistry.



● HCl

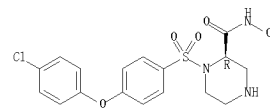
RN 192330-20-4 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-fluorophenoxy)phenyl]sulfonyl]-N-hydroxy-4-methyl-, (2R)- (CA INDEX NAME)

L9 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 192330-23-7 CAPLUS
CN 2-Piperazinecarboxamide, 1-[[4-(4-chlorophenoxy)phenyl]sulfonyl]-N-hydroxy-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



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(FILE 'HOME' ENTERED AT 07:57:59 ON 21 DEC 2008)

FILE 'REGISTRY' ENTERED AT 07:58:16 ON 21 DEC 2008

L1 STRUCTURE UPLOADED
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L3 1 SEA ABB=ON PLU=ON PIPERAZINE/CN
 D RSD
L4 1425189 SEA ABB=ON PLU=ON 46.383/RID
L5 367 SEA SUB=L4 SSS FUL L1
 D QUE L5 STAT
L6 238 SEA ABB=ON PLU=ON L5 AND ED<6/12/2002
L7 235 SEA ABB=ON PLU=ON L6 AND CAPLUS/LC
L8 3 SEA ABB=ON PLU=ON L6 NOT L7
 D 1-3 IDE CAN

FILE 'CAPLUS' ENTERED AT 08:03:47 ON 21 DEC 2008

L9 17 SEA ABB=ON PLU=ON L5
 D 1-17 BIB ABS HITSTR

FILE HOME

FILE REGISTRY

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=> log y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

94.57

303.86

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-13.60

-13.60

STN INTERNATIONAL LOGOFF AT 08:06:07 ON 21 DEC 2008